



SEQUENCE LISTING

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c/ <120> Secreted and Transmembrane Polypeptides and Nucleic  
Acids Encoding the Same

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<141> 2000-09-18

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<213> Homo sapiens

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Arg Cys Arg Gly Leu Val Asp Lys Phe Asn Gln Gly Met Val Asp Thr
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Ala Lys Lys Asn Phe Gly Gly Gly Asn Thr Ala Trp Glu Glu Lys Thr
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Leu Ser Lys Tyr Glu Ser Ser Glu Ile Arg Leu Leu Glu Ile Leu Glu
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Gly Leu Cys Glu Ser Ser Asp Phe Glu Cys Asn Gln Met Leu Glu Ala
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Gln Glu Glu His Leu Glu Ala Trp Trp Leu Gln Leu Lys Ser Glu Tyr
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Pro Asp Leu Phe Glu Trp Phe Cys Val Lys Thr Leu Lys Val Cys Cys
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Ser Pro Gly Thr Tyr Gly Pro Asp Cys Leu Ala Cys Gln Gly Gly Ser
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Gln Arg Pro Cys Ser Gly Asn Gly His Cys Ser Gly Asp Gly Ser Arg
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Gln Gly Asp Gly Ser Cys Arg Cys His Met Gly Tyr Gln Gly Pro Leu
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Cys Thr Asp Cys Met Asp Gly Tyr Phe Ser Ser Leu Arg Asn Glu Thr
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His Ser Ile Cys Thr Ala Cys Asp Glu Ser Cys Lys Thr Cys Ser Gly

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Glu Glu Cys Asp Ser Ser Cys Val Gly Cys Thr Gly Glu Gly Pro Gly		
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Asn Cys Lys Glu Cys Ile Ser Gly Tyr Ala Arg Glu His Gly Gln Cys		
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Ala Asp Val Asp Glu Cys Ser Leu Ala Glu Lys Thr Cys Val Arg Lys		
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Asn Glu Asn Cys Tyr Asn Thr Pro Gly Ser Tyr Val Cys Val Cys Pro		
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 <213> Homo sapiens

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<212> PRT
<213> Homo sapiens

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Glu Glu Ser Leu Tyr Leu Trp Ile Asp Ala His Gln Ala Arg Val Leu
      35              40              45

Ile Gly Phe Glu Glu Asp Ile Leu Ile Val Ser Glu Gly Lys Met Ala
      50              55              60

Pro Phe Thr His Asp Phe Arg Lys Ala Gln Gln Arg Met Pro Ala Ile
      65              70              75              80

Pro Val Asn Ile His Ser Met Asn Phe Thr Trp Gln Ala Ala Gly Gln
      85              90              95

Ala Glu Tyr Phe Tyr Glu Phe Leu Ser Leu Arg Ser Leu Asp Lys Gly
      100             105             110

Ile Met Ala Asp Pro Thr Val Asn Val Pro Leu Leu Gly Thr Val Pro
      115             120             125

His Lys Ala Ser Val Val Gln Val Gly Phe Pro Cys Leu Gly Lys Gln
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Asp Gly Val Ala Ala Phe Glu Val Asp Val Ile Val Met Asn Ser Glu
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Gly Asn Thr Ile Leu Gln Thr Pro Gln Asn Ala Ile Phe Phe Lys Thr
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 210 215 220  
 Val Thr Pro Gly Phe Cys Ile Cys Pro Pro Gly Phe Tyr Gly Val Asn  
 225 230 235 240  
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 275 280 285  
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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

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<211> 21

<212> DNA

<213> Artificial Sequence

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 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

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 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: Synthetic  
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 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: Synthetic  
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<212> DNA  
<213> Homo sapiens

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<211> 164  
<212> PRT  
<213> Homo sapiens

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      20                      25                      30

Pro Gly Leu His Leu Arg Gly Ile Arg Asp Ala Gly Gly Arg Tyr Cys
      35                      40                      45
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 Pro Tyr Leu Gly Ala Ile Cys Tyr Cys Asp Leu Phe Cys Asn Arg Thr  
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 Val Ser Asp Cys Cys Pro Asp Phe Trp Asp Phe Cys Leu Gly Val Pro  
                           85                          90                          95  
 Pro Pro Phe Pro Pro Ile Gln Gly Cys Met His Gly Gly Arg Ile Tyr  
                   100                          105                          110  
 Pro Val Leu Gly Thr Tyr Trp Asp Asn Cys Asn Arg Cys Thr Cys Gln  
           115                          120                          125  
 Glu Asn Arg Gln Trp His Gly Gly Ser Arg His Asp Gln Ser His Gln  
       130                          135                          140  
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<210> 13  
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 <212> DNA  
 <213> Homo sapiens

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

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<212> DNA

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oligonucleotide probe

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oligonucleotide probe

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<210> 17

<211> 960

<212> DNA

<213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

<400> 18

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Tyr	Val	Cys	Thr	Pro	Val	Pro	His	Pro	Asp	Pro	Pro	Met	Ala	Leu	Ser
		100						105					110		
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<212> DNA  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

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<210> 20  
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<212> DNA  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

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<210> 21  
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<212> DNA  
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<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 21  
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<210> 22  
<211> 1200  
<212> DNA  
<213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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 Thr Phe Gly Ser Arg Val Arg Ile Lys Gly Ala Glu Ser Glu Lys Tyr  
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 Ser Lys Asp Cys Val Phe Thr Glu Ile Val Leu Glu Asn Asn Tyr Thr  
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<210> 24  
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 <212> DNA  
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<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

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oligonucleotide probe

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<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

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 <211> 660  
 <212> PRT  
 <213> Homo sapiens

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 Cys Asn Glu Arg Ser Leu Thr Ser Val Pro Leu Gly Ile Pro Glu Gly  
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 Val Thr Val Leu Tyr Leu His Asn Asn Gln Ile Asn Asn Ala Gly Phe  
 65 70 75 80  
 Pro Ala Glu Leu His Asn Val Gln Ser Val His Thr Val Tyr Leu Tyr  
 85 90 95  
 Gly Asn Gln Leu Asp Glu Phe Pro Met Asn Leu Pro Lys Asn Val Arg  
 100 105 110  
 Val Leu His Leu Gln Glu Asn Asn Ile Gln Thr Ile Ser Arg Ala Ala  
 115 120 125

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Leu	Lys	Leu	Leu	Phe	Leu	Ser	Lys	Asn	His	Leu	Ser	Ser	Val	Pro	Val	165	170	175
Gly	Leu	Pro	Val	Asp	Leu	Gln	Glu	Leu	Arg	Val	Asp	Glu	Asn	Arg	Ile	180	185	190
Ala	Val	Ile	Ser	Asp	Met	Ala	Phe	Gln	Asn	Leu	Thr	Ser	Leu	Glu	Arg	195	200	205
Leu	Ile	Val	Asp	Gly	Asn	Leu	Leu	Thr	Asn	Lys	Gly	Ile	Ala	Glu	Gly	210	215	220
Thr	Phe	Ser	His	Leu	Thr	Lys	Leu	Lys	Glu	Phe	Ser	Ile	Val	Arg	Asn	225	230	235
Ser	Leu	Ser	His	Pro	Pro	Pro	Asp	Leu	Pro	Gly	Thr	His	Leu	Ile	Arg	245	250	255
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Arg	Met	Leu	Thr	Gln	Gly	Val	Phe	Asp	Asn	Leu	Ser	Asn	Leu	Lys	Gln	290	295	300
Leu	Thr	Ala	Arg	Asn	Asn	Pro	Trp	Phe	Cys	Asp	Cys	Ser	Ile	Lys	Trp	305	310	315
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Thr	Thr	Ser	Lys	Leu	Pro	Thr	Ile	Pro	Asp	Trp	Asp	Gly	Arg	Glu	Arg	405	410	415
Val	Thr	Pro	Pro	Ile	Ser	Glu	Arg	Ile	Gln	Leu	Ser	Ile	His	Phe	Val	420	425	430



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 Ile Val Gln Glu Arg Ile Val Ser Gly Glu Lys Gln His Leu Ser Leu  
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 Val Asn Leu Glu Pro Arg Ser Thr Tyr Arg Ile Cys Leu Val Pro Leu  
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 Asp Ala Phe Asn Tyr Arg Ala Val Glu Asp Thr Ile Cys Ser Glu Ala  
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 His Glu Gln Thr Thr Ser His Ser Met Gly Ser Pro Phe Leu Leu Ala  
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 Val Phe Cys Trp His Met His Lys Lys Gly Arg Tyr Thr Ser Gln Lys  
 565 570 575  
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 Thr Lys Lys Asp Asn Ser Ile Leu Glu Met Thr Glu Thr Ser Phe Gln  
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<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 29

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<210> 30  
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oligonucleotide probe

<400> 30  
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<210> 31  
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<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

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<210> 34  
 <211> 915  
 <212> PRT  
 <213> Homo sapiens

<400> 34  
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 Val Leu Leu Pro Ala Glu Ala Arg Glu Arg Ser Arg Gly Arg Ser Ile  
                           20                          25                          30  
 Ser Arg Gly Arg His Ala Arg Thr His Pro Gln Thr Ala Leu Leu Glu

35	40	45																	
Ser	Ser	Cys	Glu	Asn	Lys	Arg	Ala	Asp	Leu	Val	Phe	Ile	Ile	Asp	Ser				
50						55					60								
Ser	Arg	Ser	Val	Asn	Thr	His	Asp	Tyr	Ala	Lys	Val	Lys	Glu	Phe	Ile				
65					70					75					80				
Val	Asp	Ile	Leu	Gln	Phe	Leu	Asp	Ile	Gly	Pro	Asp	Val	Thr	Arg	Val				
				85					90					95					
Gly	Leu	Leu	Gln	Tyr	Gly	Ser	Thr	Val	Lys	Asn	Glu	Phe	Ser	Leu	Lys				
			100					105					110						
Thr	Phe	Lys	Arg	Lys	Ser	Glu	Val	Glu	Arg	Ala	Val	Lys	Arg	Met	Arg				
		115					120					125							
His	Leu	Ser	Thr	Gly	Thr	Met	Thr	Gly	Leu	Ala	Ile	Gln	Tyr	Ala	Leu				
130						135					140								
Asn	Ile	Ala	Phe	Ser	Glu	Ala	Glu	Gly	Ala	Arg	Pro	Leu	Arg	Glu	Asn				
145					150					155					160				
Val	Pro	Arg	Val	Ile	Met	Ile	Val	Thr	Asp	Gly	Arg	Pro	Gln	Asp	Ser				
				165					170					175					
Val	Ala	Glu	Val	Ala	Ala	Lys	Ala	Arg	Asp	Thr	Gly	Ile	Leu	Ile	Phe				
			180					185					190						
Ala	Ile	Gly	Val	Gly	Gln	Val	Asp	Phe	Asn	Thr	Leu	Lys	Ser	Ile	Gly				
		195					200					205							
Ser	Glu	Pro	His	Glu	Asp	His	Val	Phe	Leu	Val	Ala	Asn	Phe	Ser	Gln				
210						215					220								
Ile	Glu	Thr	Leu	Thr	Ser	Val	Phe	Gln	Lys	Lys	Leu	Cys	Thr	Ala	His				
225					230					235					240				
Met	Cys	Ser	Thr	Leu	Glu	His	Asn	Cys	Ala	His	Phe	Cys	Ile	Asn	Ile				
				245					250					255					
Pro	Gly	Ser	Tyr	Val	Cys	Arg	Cys	Lys	Gln	Gly	Tyr	Ile	Leu	Asn	Ser				
			260					265					270						
Asp	Gln	Thr	Thr	Cys	Arg	Ile	Gln	Asp	Leu	Cys	Ala	Met	Glu	Asp	His				
		275					280					285							
Asn	Cys	Glu	Gln	Leu	Cys	Val	Asn	Val	Pro	Gly	Ser	Phe	Val	Cys	Gln				
		290				295					300								
Cys	Tyr	Ser	Gly	Tyr	Ala	Leu	Ala	Glu	Asp	Gly	Lys	Arg	Cys	Val	Ala				
305					310					315					320				
Val	Asp	Tyr	Cys	Ala	Ser	Glu	Asn	His	Gly	Cys	Glu	His	Glu	Cys	Val				
				325					330					335					
Asn	Ala	Asp	Gly	Ser	Tyr	Leu	Cys	Gln	Cys	His	Glu	Gly	Phe	Ala	Leu				

340					345					350						
Asn	Pro	Asp	Glu	Lys	Thr	Cys	Thr	Arg	Ile	Asn	Tyr	Cys	Ala	Leu	Asn	
355					360					365						
Lys	Pro	Gly	Cys	Glu	His	Glu	Cys	Val	Asn	Met	Glu	Glu	Ser	Tyr	Tyr	
370					375					380						
Cys	Arg	Cys	His	Arg	Gly	Tyr	Thr	Leu	Asp	Pro	Asn	Gly	Lys	Thr	Cys	
385					390					395					400	
Ser	Arg	Val	Asp	His	Cys	Ala	Gln	Gln	Asp	His	Gly	Cys	Glu	Gln	Leu	
405					410					415						
Cys	Leu	Asn	Thr	Glu	Asp	Ser	Phe	Val	Cys	Gln	Cys	Ser	Glu	Gly	Phe	
420					425					430						
Leu	Ile	Asn	Glu	Asp	Leu	Lys	Thr	Cys	Ser	Arg	Val	Asp	Tyr	Cys	Leu	
435					440					445						
Leu	Ser	Asp	His	Gly	Cys	Glu	Tyr	Ser	Cys	Val	Asn	Met	Asp	Arg	Ser	
450					455					460						
Phe	Ala	Cys	Gln	Cys	Pro	Glu	Gly	His	Val	Leu	Arg	Ser	Asp	Gly	Lys	
465					470					475					480	
Thr	Cys	Ala	Lys	Leu	Asp	Ser	Cys	Ala	Leu	Gly	Asp	His	Gly	Cys	Glu	
485					490					495						
His	Ser	Cys	Val	Ser	Ser	Glu	Asp	Ser	Phe	Val	Cys	Gln	Cys	Phe	Glu	
500					505					510						
Gly	Tyr	Ile	Leu	Arg	Glu	Asp	Gly	Lys	Thr	Cys	Arg	Arg	Lys	Asp	Val	
515					520					525						
Cys	Gln	Ala	Ile	Asp	His	Gly	Cys	Glu	His	Ile	Cys	Val	Asn	Ser	Asp	
530					535					540						
Asp	Ser	Tyr	Thr	Cys	Glu	Cys	Leu	Glu	Gly	Phe	Arg	Leu	Ala	Glu	Asp	
545					550					555					560	
Gly	Lys	Arg	Cys	Arg	Arg	Lys	Asp	Val	Cys	Lys	Ser	Thr	His	His	Gly	
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Cys	Glu	His	Ile	Cys	Val	Asn	Asn	Gly	Asn	Ser	Tyr	Ile	Cys	Lys	Cys	
580					585					590						
Ser	Glu	Gly	Phe	Val	Leu	Ala	Glu	Asp	Gly	Arg	Arg	Cys	Lys	Lys	Cys	
595					600					605						
Thr	Glu	Gly	Pro	Ile	Asp	Leu	Val	Phe	Val	Ile	Asp	Gly	Ser	Lys	Ser	
610					615					620						
Leu	Gly	Glu	Glu	Asn	Phe	Glu	Val	Val	Lys	Gln	Phe	Val	Thr	Gly	Ile	
625					630					635					640	
Ile	Asp	Ser	Leu	Thr	Ile	Ser	Pro	Lys	Ala	Ala	Arg	Val	Gly	Leu	Leu	

645										650					655						
Gln	Tyr	Ser	Thr	Gln	Val	His	Thr	Glu	Phe	Thr	Leu	Arg	Asn	Phe	Asn						
			660					665					670								
Ser	Ala	Lys	Asp	Met	Lys	Lys	Ala	Val	Ala	His	Met	Lys	Tyr	Met	Gly						
		675					680					685									
Lys	Gly	Ser	Met	Thr	Gly	Leu	Ala	Leu	Lys	His	Met	Phe	Glu	Arg	Ser						
	690					695					700										
Phe	Thr	Gln	Gly	Glu	Gly	Ala	Arg	Pro	Leu	Ser	Thr	Arg	Val	Pro	Arg						
705					710					715					720						
Ala	Ala	Ile	Val	Phe	Thr	Asp	Gly	Arg	Ala	Gln	Asp	Asp	Val	Ser	Glu						
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Trp	Ala	Ser	Lys	Ala	Lys	Ala	Asn	Gly	Ile	Thr	Met	Tyr	Ala	Val	Gly						
		740						745					750								
Val	Gly	Lys	Ala	Ile	Glu	Glu	Glu	Leu	Gln	Glu	Ile	Ala	Ser	Glu	Pro						
	755						760					765									
Thr	Asn	Lys	His	Leu	Phe	Tyr	Ala	Glu	Asp	Phe	Ser	Thr	Met	Asp	Glu						
	770					775					780										
Ile	Ser	Glu	Lys	Leu	Lys	Lys	Gly	Ile	Cys	Glu	Ala	Leu	Glu	Asp	Ser						
785					790				795						800						
Asp	Gly	Arg	Gln	Asp	Ser	Pro	Ala	Gly	Glu	Leu	Pro	Lys	Thr	Val	Gln						
				805					810					815							
Gln	Pro	Thr	Glu	Ser	Glu	Pro	Val	Thr	Ile	Asn	Ile	Gln	Asp	Leu	Leu						
			820					825					830								
Ser	Cys	Ser	Asn	Phe	Ala	Val	Gln	His	Arg	Tyr	Leu	Phe	Glu	Glu	Asp						
		835					840					845									
Asn	Leu	Leu	Arg	Ser	Thr	Gln	Lys	Leu	Ser	His	Ser	Thr	Lys	Pro	Ser						
						855					860										
Gly	Ser	Pro	Leu	Glu	Glu	Lys	His	Asp	Gln	Cys	Lys	Cys	Glu	Asn	Leu						
865					870					875					880						
Ile	Met	Phe	Gln	Asn	Leu	Ala	Asn	Glu	Glu	Val	Arg	Lys	Leu	Thr	Gln						
				885					890					895							
Arg	Leu	Glu	Glu	Met	Thr	Gln	Arg	Met	Glu	Ala	Leu	Glu	Asn	Arg	Leu						
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Arg	Tyr	Arg																			
		915																			

<210> 35  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 35

gtgaccctgg ttgtgaatac tcc

23

<210> 36

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 36

acagccatgg tctatagctt gg

22

<210> 37

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 37

gcctgtcagt gtcctgaggg acacgtgctc cgcagcgatg ggaag

45

<210> 38

<211> 1813

<212> DNA

<213> Homo sapiens

<400> 38

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gggccatgat ttccctcccg gggcccctgg tgaccaactt gctgcggttt ttgttcctgg 180  
ggctgagtgc cctcgcgccc ccctcgcggg ccagctgca actgcacttg cccgccaacc 240  
ggttgacaggc ggtggaggga ggggaagtgg tgcttcacg gtggtacacc ttgcacgggg 300  
aggtgtcttc atcccagcca tgggaggtgc cttttgtgat gtggttcttc aaacagaaaag 360  
aaaaggagga tcaggtgttg tctacatca atgggggtcac aacaagcaaa cctggagtat 420  
ccttggtcta ctccatgcc tcccgaacc tgtccctgcg gctggagggt ctccaggaga 480  
aagactctgg ccctacacg tgctccgtga atgtgcaaga caaacaaggc aaatctaggg 540  
gccacagcat caaaacctta gaactcaatg tactggttcc tccagctcct ccctcctgcc 600  
gtctccaggg tgtgccccat gtgggggcaa acgtgaccct gagctgccag tctccaagga 660  
gtaagccgcg tgtccaatac cagtgggac ggcagcttcc atccttccag actttctttg 720  
caccagcatt agatgtcatc cgtgggtctt taagcctcac caaccttctg tcttccatgg 780  
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aggagccagc caatgatata aaggaggatg ccattgctcc ccggaccctg ccctggccca 1020  
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tccggccacc ccatggccct cccaggcctg gtgcattgac cccacgccc agtctctcca 1140

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tttgtatgaa aaa 1813

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<210> 39  
 <211> 390  
 <212> PRT  
 <213> Homo sapiens

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<400> 39
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Phe Leu Gly Leu Ser Ala Leu Ala Pro Pro Ser Arg Ala Gln Leu Gln
      20             25             30

Leu His Leu Pro Ala Asn Arg Leu Gln Ala Val Glu Gly Gly Glu Val
      35             40             45

Val Leu Pro Ala Trp Tyr Thr Leu His Gly Glu Val Ser Ser Ser Gln
      50             55             60

Pro Trp Glu Val Pro Phe Val Met Trp Phe Phe Lys Gln Lys Glu Lys
      65             70             75             80

Glu Asp Gln Val Leu Ser Tyr Ile Asn Gly Val Thr Thr Ser Lys Pro
      85             90             95

Gly Val Ser Leu Val Tyr Ser Met Pro Ser Arg Asn Leu Ser Leu Arg
      100            105            110

Leu Glu Gly Leu Gln Glu Lys Asp Ser Gly Pro Tyr Ser Cys Ser Val
      115            120            125

Asn Val Gln Asp Lys Gln Gly Lys Ser Arg Gly His Ser Ile Lys Thr
      130            135            140

Leu Glu Leu Asn Val Leu Val Pro Pro Ala Pro Pro Ser Cys Arg Leu
      145            150            155            160

Gln Gly Val Pro His Val Gly Ala Asn Val Thr Leu Ser Cys Gln Ser
      165            170            175

Pro Arg Ser Lys Pro Ala Val Gln Tyr Gln Trp Asp Arg Gln Leu Pro
      180            185            190

Ser Phe Gln Thr Phe Phe Ala Pro Ala Leu Asp Val Ile Arg Gly Ser
      195            200            205

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Leu Ser Leu Thr Asn Leu Ser Ser Ser Met Ala Gly Val Tyr Val Cys  
 210 215 220  
 Lys Ala His Asn Glu Val Gly Thr Ala Gln Cys Asn Val Thr Leu Glu  
 225 230 235 240  
 Val Ser Thr Gly Pro Gly Ala Ala Val Val Ala Gly Ala Val Val Gly  
 245 250 255  
 Thr Leu Val Gly Leu Gly Leu Leu Ala Gly Leu Val Leu Leu Tyr His  
 260 265 270  
 Arg Arg Gly Lys Ala Leu Glu Glu Pro Ala Asn Asp Ile Lys Glu Asp  
 275 280 285  
 Ala Ile Ala Pro Arg Thr Leu Pro Trp Pro Lys Ser Ser Asp Thr Ile  
 290 295 300  
 Ser Lys Asn Gly Thr Leu Ser Ser Val Thr Ser Ala Arg Ala Leu Arg  
 305 310 315 320  
 Pro Pro His Gly Pro Pro Arg Pro Gly Ala Leu Thr Pro Thr Pro Ser  
 325 330 335  
 Leu Ser Ser Gln Ala Leu Pro Ser Pro Arg Leu Pro Thr Thr Asp Gly  
 340 345 350  
 Ala His Pro Gln Pro Ile Ser Pro Ile Pro Gly Gly Val Ser Ser Ser  
 355 360 365  
 Gly Leu Ser Arg Met Gly Ala Val Pro Val Met Val Pro Ala Gln Ser  
 370 375 380  
 Gln Ala Gly Ser Leu Val  
 385 390

<210> 40  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 40  
 agggctctcca ggagaaagac tc

22

<210> 41  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 41  
 attgtgggcc ttgcagacat agac 24  
  
 <210> 42  
 <211> 50  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe  
  
 <400> 42  
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 <210> 43  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence  
  
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 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe  
  
 <400> 43  
 gtgtgacaca gcgtgggc 18  
  
 <210> 44  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe  
  
 <400> 44  
 gaccggcagg cttctgcg 18  
  
 <210> 45  
 <211> 25  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe  
  
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 cagcagcttc agccaccagg agtgg 25  
  
 <210> 46  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 46

ctgagccgtg ggctgcagtc tcgc

24

<210> 47

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 47

ccgactacga ctggttcttc atcatgcagg atgacacata tgtgc

45

<210> 48

<211> 2822

<212> DNA

<213> Homo sapiens

<400> 48

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gtgaaatacg	caatggaatt	gaagcctgct	attgcaacat	gggattttca	ggaaatgggtg	180
tcacaatttg	tgaagatgat	aatgaatgtg	gaaatttaac	tcagtcctgt	ggcgaaaatg	240
ctaattgcac	taacacagaa	ggaagttatt	attgtatgtg	tgtacctggc	ttcagatcca	300
gcagtaacca	agacaggttt	atcactaatg	atggaaccgt	ctgtatagaa	aatgtgaatg	360
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tcagatccat	aaaagaacct	gtggctttgc	tacaagaagt	ctatagaaat	tctgtgacag	480
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taggttacaa	gaacaacact	atctcagcca	aggacaccct	ttctaactca	actcttactg	600
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tatctgtgaa	tcataggaga	acacatctta	caaaactcat	gcacactggt	gaacaagcta	720
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gcaatgttgc	agttgcattt	ttatattata	agagtattgg	tcctttgctt	tcattcatctg	960
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taacatttac	attaagtcac	cgaaagggtca	cagataggta	taggagtcta	tgtgcatttt	1140
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actcaaataga	gaccacaccc	tcattgccgct	gtaatcacct	gacacatttt	gcaattttga	1260
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tatacaaagt	ttttcgtcac	actgcagggt	tgaaccagaa	agttagttgc	tttgagaaca	1860
taaggtcttg	tgaagaggga	gccctcgctc	ttctgttctc	tctcggcacc	acctggatct	1920

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aagaatatta cagattgttc aaaaatgtcc cctgttgttt tggatgttta aggtaaacat 2100
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<210> 49  
 <211> 690  
 <212> PRT  
 <213> Homo sapiens

<400> 49  
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                   20                  25                  30  
 Cys Glu Ile Arg Asn Gly Ile Glu Ala Cys Tyr Cys Asn Met Gly Phe  
                   35                  40                  45  
 Ser Gly Asn Gly Val Thr Ile Cys Glu Asp Asp Asn Glu Cys Gly Asn  
   50                  55                  60  
 Leu Thr Gln Ser Cys Gly Glu Asn Ala Asn Cys Thr Asn Thr Glu Gly  
   65                  70                  75                  80  
 Ser Tyr Tyr Cys Met Cys Val Pro Gly Phe Arg Ser Ser Ser Asn Gln  
                   85                  90                  95  
 Asp Arg Phe Ile Thr Asn Asp Gly Thr Val Cys Ile Glu Asn Val Asn  
                   100                  105                  110  
 Ala Asn Cys His Leu Asp Asn Val Cys Ile Ala Ala Asn Ile Asn Lys  
                   115                  120                  125  
 Thr Leu Thr Lys Ile Arg Ser Ile Lys Glu Pro Val Ala Leu Leu Gln  
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 Glu Val Tyr Arg Asn Ser Val Thr Asp Leu Ser Pro Thr Asp Ile Ile  
   145                  150                  155                  160  
 Thr Tyr Ile Glu Ile Leu Ala Glu Ser Ser Ser Leu Leu Gly Tyr Lys  
                   165                  170                  175  
 Asn Asn Thr Ile Ser Ala Lys Asp Thr Leu Ser Asn Ser Thr Leu Thr

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		195					200					205							
Val	Trp	Asp	Lys	Leu	Ser	Val	Asn	His	Arg	Arg	Thr	His	Leu	Thr	Lys				
	210					215					220								
Leu	Met	His	Thr	Val	Glu	Gln	Ala	Thr	Leu	Arg	Ile	Ser	Gln	Ser	Phe				
225					230					235					240				
Gln	Lys	Thr	Thr	Glu	Phe	Asp	Thr	Asn	Ser	Thr	Asp	Ile	Ala	Leu	Lys				
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Val	Phe	Phe	Phe	Asp	Ser	Tyr	Asn	Met	Lys	His	Ile	His	Pro	His	Met				
			260					265					270						
Asn	Met	Asp	Gly	Asp	Tyr	Ile	Asn	Ile	Phe	Pro	Lys	Arg	Lys	Ala	Ala				
		275					280					285							
Tyr	Asp	Ser	Asn	Gly	Asn	Val	Ala	Val	Ala	Phe	Leu	Tyr	Tyr	Lys	Ser				
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Ile	Gly	Pro	Leu	Leu	Ser	Ser	Ser	Asp	Asn	Phe	Leu	Leu	Lys	Pro	Gln				
305					310					315					320				
Asn	Tyr	Asp	Asn	Ser	Glu	Glu	Glu	Glu	Arg	Val	Ile	Ser	Ser	Val	Ile				
				325					330					335					
Ser	Val	Ser	Met	Ser	Ser	Asn	Pro	Pro	Thr	Leu	Tyr	Glu	Leu	Glu	Lys				
			340					345					350						
Ile	Thr	Phe	Thr	Leu	Ser	His	Arg	Lys	Val	Thr	Asp	Arg	Tyr	Arg	Ser				
		355					360					365							
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Ser	Ser	Glu	Gly	Cys	Glu	Leu	Thr	Tyr	Ser	Asn	Glu	Thr	His	Thr	Ser				
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Pro	Ser	Ile	Gly	Ile	Lys	Asp	Tyr	Asn	Ile	Leu	Thr	Arg	Ile	Thr	Gln				
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Asn	Leu	Cys	Cys	Ser	Leu	Phe	Leu	Ala	Glu	Leu	Val	Phe	Leu	Val	Gly				
465					470					475					480				
Ile	Asn	Thr	Asn	Thr	Asn	Lys	Leu	Phe	Cys	Ser	Ile	Ile	Ala	Gly	Leu				



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atatgcattt ttaccttctg gttcttcagt gaaattcaaa gcaccagga 589

<210> 51  
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<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 51  
ggtaatgagc tccattacag 20

<210> 52  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 52  
ggagtagaaa gcgcatgg 18

<210> 53  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 53  
cacctgatac catgaatggc ag 22

<210> 54  
<211> 18  
<212> DNA  
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 54  
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<210> 55  
<211> 18  
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 55

ggatctcctg agctcagg

18

<210> 56

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 56

cctagttgag tgatccttgt aag

23

<210> 57

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 57

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50

<210> 58

<211> 2137

<212> DNA

<213> Homo sapiens

<400> 58

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<210> 59  
<211> 216  
<212> PRT  
<213> Homo sapiens

<400> 59  
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His Val His Tyr Gly Trp Gly Asp Pro Ile Arg Leu Arg His Leu Tyr  
35 40 45  
Thr Ser Gly Pro His Gly Leu Ser Ser Cys Phe Leu Arg Ile Arg Ala  
50 55 60  
Asp Gly Val Val Asp Cys Ala Arg Gly Gln Ser Ala His Ser Leu Leu  
65 70 75 80  
Glu Ile Lys Ala Val Ala Leu Arg Thr Val Ala Ile Lys Gly Val His  
85 90 95  
Ser Val Arg Tyr Leu Cys Met Gly Ala Asp Gly Lys Met Gln Gly Leu  
100 105 110  
Leu Gln Tyr Ser Glu Glu Asp Cys Ala Phe Glu Glu Glu Ile Arg Pro  
115 120 125  
Asp Gly Tyr Asn Val Tyr Arg Ser Glu Lys His Arg Leu Pro Val Ser  
130 135 140  
Leu Ser Ser Ala Lys Gln Arg Gln Leu Tyr Lys Asn Arg Gly Phe Leu  
145 150 155 160  
Pro Leu Ser His Phe Leu Pro Met Leu Pro Met Val Pro Glu Glu Pro  
165 170 175

Glu Asp Leu Arg Gly His Leu Glu Ser Asp Met Phe Ser Ser Pro Leu  
180 185 190

Glu Thr Asp Ser Met Asp Pro Phe Gly Leu Val Thr Gly Leu Glu Ala  
195 200 205

Val Arg Ser Pro Ser Phe Glu Lys  
210 215

<210> 60  
<211> 26  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 60  
atccgcccag atggctacaa tgtgta 26

<210> 61  
<211> 42  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 61  
gcctcccggg ctccctgagc agtgccaaac agcggcagtg ta 42

<210> 62  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 62  
ccagtccggg gacaagccca aa 22

<210> 63  
<211> 1295  
<212> DNA  
<213> Homo sapiens

<400> 63  
cccagaagtt caagggcccc cggcctcctg cgctcctgcc gccgggaccc tcgacctcct 60  
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cccaaaagac caacaagtag tcacagcagt agagtaccaa gaggctattt tagcctgcaa 240  
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tagtgcccca tctgagcaag gccaaaacct ggaagaggat acagtcactc tggaagtatt 480
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<210> 64  
 <211> 312  
 <212> PRT  
 <213> Homo sapiens

<400> 64

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Lys	Asp	Gln	Gln	Val	Val	Thr	Ala	Val	Glu	Tyr	Gln	Glu	Ala	Ile	Leu	35	40	45	
Ala	Cys	Lys	Thr	Pro	Lys	Lys	Thr	Val	Ser	Ser	Arg	Leu	Glu	Trp	Lys	50	55	60	
Lys	Leu	Gly	Arg	Ser	Val	Ser	Phe	Val	Tyr	Tyr	Gln	Gln	Thr	Leu	Gln	65	70	75	80
Gly	Asp	Phe	Lys	Asn	Arg	Ala	Glu	Met	Ile	Asp	Phe	Asn	Ile	Arg	Ile	85	90	95	
Lys	Asn	Val	Thr	Arg	Ser	Asp	Ala	Gly	Lys	Tyr	Arg	Cys	Glu	Val	Ser	100	105	110	
Ala	Pro	Ser	Glu	Gln	Gly	Gln	Asn	Leu	Glu	Glu	Asp	Thr	Val	Thr	Leu	115	120	125	
Glu	Val	Leu	Val	Ala	Pro	Ala	Val	Pro	Ser	Cys	Glu	Val	Pro	Ser	Ser	130	135	140	
Ala	Leu	Ser	Gly	Thr	Val	Val	Glu	Leu	Arg	Cys	Gln	Asp	Lys	Glu	Gly	145	150	155	160
Asn	Pro	Ala	Pro	Glu	Tyr	Thr	Trp	Phe	Lys	Asp	Gly	Ile	Arg	Leu	Leu	165	170	175	

Glu	Asn	Pro	Arg	Leu	Gly	Ser	Gln	Ser	Thr	Asn	Ser	Ser	Tyr	Thr	Met
			180					185					190		
Asn	Thr	Lys	Thr	Gly	Thr	Leu	Gln	Phe	Asn	Thr	Val	Ser	Lys	Leu	Asp
		195					200					205			
Thr	Gly	Glu	Tyr	Ser	Cys	Glu	Ala	Arg	Asn	Ser	Val	Gly	Tyr	Arg	Arg
	210					215					220				
Cys	Pro	Gly	Lys	Arg	Met	Gln	Val	Asp	Asp	Leu	Asn	Ile	Ser	Gly	Ile
225					230					235					240
Ile	Ala	Ala	Val	Val	Val	Val	Ala	Leu	Val	Ile	Ser	Val	Cys	Gly	Leu
			245						250					255	
Gly	Val	Cys	Tyr	Ala	Gln	Arg	Lys	Gly	Tyr	Phe	Ser	Lys	Glu	Thr	Ser
			260					265					270		
Phe	Gln	Lys	Ser	Asn	Ser	Ser	Ser	Lys	Ala	Thr	Thr	Met	Ser	Glu	Asn
		275					280					285			
Val	Gln	Trp	Leu	Thr	Pro	Val	Ile	Pro	Ala	Leu	Trp	Lys	Ala	Ala	Ala
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<210> 65  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 65  
 atcgttgatga agttagtgcc cc 22

<210> 66  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 66  
 acctgcgata tccaacagaa ttg 23

<210> 67  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 67

ggaagaggat acagtcactc tggaagtatt agtggctcca gcagttcc

48

<210> 68

<211> 2639

<212> DNA

<213> Homo sapiens

<400> 68

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<210> 69  
<211> 708  
<212> PRT  
<213> Homo sapiens

<400> 69  
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Cys Thr Cys Glu Ile Arg Pro Trp Phe Thr Pro Arg Ser Ile Tyr Met  
35 40 45  
Glu Ala Ser Thr Val Asp Cys Asn Asp Leu Gly Leu Leu Thr Phe Pro  
50 55 60  
Ala Arg Leu Pro Ala Asn Thr Gln Ile Leu Leu Leu Gln Thr Asn Asn  
65 70 75 80  
Ile Ala Lys Ile Glu Tyr Ser Thr Asp Phe Pro Val Asn Leu Thr Gly  
85 90 95  
Leu Asp Leu Ser Gln Asn Asn Leu Ser Ser Val Thr Asn Ile Asn Val  
100 105 110  
Lys Lys Met Pro Gln Leu Leu Ser Val Tyr Leu Glu Glu Asn Lys Leu  
115 120 125  
Thr Glu Leu Pro Glu Lys Cys Leu Ser Glu Leu Ser Asn Leu Gln Glu  
130 135 140  
Leu Tyr Ile Asn His Asn Leu Leu Ser Thr Ile Ser Pro Gly Ala Phe  
145 150 155 160  
Ile Gly Leu His Asn Leu Leu Arg Leu His Leu Asn Ser Asn Arg Leu  
165 170 175  
Gln Met Ile Asn Ser Lys Trp Phe Asp Ala Leu Pro Asn Leu Glu Ile  
180 185 190  
Leu Met Ile Gly Glu Asn Pro Ile Ile Arg Ile Lys Asp Met Asn Phe  
195 200 205  
Lys Pro Leu Ile Asn Leu Arg Ser Leu Val Ile Ala Gly Ile Asn Leu  
210 215 220  
Thr Glu Ile Pro Asp Asn Ala Leu Val Gly Leu Glu Asn Leu Glu Ser  
225 230 235 240  
Ile Ser Phe Tyr Asp Asn Arg Leu Ile Lys Val Pro His Val Ala Leu  
245 250 255  
Gln Lys Val Val Asn Leu Lys Phe Leu Asp Leu Asn Lys Asn Pro Ile  
260 265 270

Asn	Arg	Ile	Arg	Arg	Gly	Asp	Phe	Ser	Asn	Met	Leu	His	Leu	Lys	Glu	275	280	285
Leu	Gly	Ile	Asn	Asn	Met	Pro	Glu	Leu	Ile	Ser	Ile	Asp	Ser	Leu	Ala	290	295	300
Val	Asp	Asn	Leu	Pro	Asp	Leu	Arg	Lys	Ile	Glu	Ala	Thr	Asn	Asn	Pro	305	310	315
Arg	Leu	Ser	Tyr	Ile	His	Pro	Asn	Ala	Phe	Phe	Arg	Leu	Pro	Lys	Leu	325	330	335
Glu	Ser	Leu	Met	Leu	Asn	Ser	Asn	Ala	Leu	Ser	Ala	Leu	Tyr	His	Gly	340	345	350
Thr	Ile	Glu	Ser	Leu	Pro	Asn	Leu	Lys	Glu	Ile	Ser	Ile	His	Ser	Asn	355	360	365
Pro	Ile	Arg	Cys	Asp	Cys	Val	Ile	Arg	Trp	Met	Asn	Met	Asn	Lys	Thr	370	375	380
Asn	Ile	Arg	Phe	Met	Glu	Pro	Asp	Ser	Leu	Phe	Cys	Val	Asp	Pro	Pro	385	390	395
Glu	Phe	Gln	Gly	Gln	Asn	Val	Arg	Gln	Val	His	Phe	Arg	Asp	Met	Met	405	410	415
Glu	Ile	Cys	Leu	Pro	Leu	Ile	Ala	Pro	Glu	Ser	Phe	Pro	Ser	Asn	Leu	420	425	430
Asn	Val	Glu	Ala	Gly	Ser	Tyr	Val	Ser	Phe	His	Cys	Arg	Ala	Thr	Ala	435	440	445
Glu	Pro	Gln	Pro	Glu	Ile	Tyr	Trp	Ile	Thr	Pro	Ser	Gly	Gln	Lys	Leu	450	455	460
Leu	Pro	Asn	Thr	Leu	Thr	Asp	Lys	Phe	Tyr	Val	His	Ser	Glu	Gly	Thr	465	470	475
Leu	Asp	Ile	Asn	Gly	Val	Thr	Pro	Lys	Glu	Gly	Gly	Leu	Tyr	Thr	Cys	485	490	495
Ile	Ala	Thr	Asn	Leu	Val	Gly	Ala	Asp	Leu	Lys	Ser	Val	Met	Ile	Lys	500	505	510
Val	Asp	Gly	Ser	Phe	Pro	Gln	Asp	Asn	Asn	Gly	Ser	Leu	Asn	Ile	Lys	515	520	525
Ile	Arg	Asp	Ile	Gln	Ala	Asn	Ser	Val	Leu	Val	Ser	Trp	Lys	Ala	Ser	530	535	540
Ser	Lys	Ile	Leu	Lys	Ser	Ser	Val	Lys	Trp	Thr	Ala	Phe	Val	Lys	Thr	545	550	555
Glu	Asn	Ser	His	Ala	Ala	Gln	Ser	Ala	Arg	Ile	Pro	Ser	Asp	Val	Lys	565	570	575

Val Tyr Asn Leu Thr His Leu Asn Pro Ser Thr Glu Tyr Lys Ile Cys  
580 585 590

Ile Asp Ile Pro Thr Ile Tyr Gln Lys Asn Arg Lys Lys Cys Val Asn  
595 600 605

Val Thr Thr Lys Gly Leu His Pro Asp Gln Lys Glu Tyr Glu Lys Asn  
610 615 620

Asn Thr Thr Thr Leu Met Ala Cys Leu Gly Gly Leu Leu Gly Ile Ile  
625 630 635 640

Gly Val Ile Cys Leu Ile Ser Cys Leu Ser Pro Glu Met Asn Cys Asp  
645 650 655

Gly Gly His Ser Tyr Val Arg Asn Tyr Leu Gln Lys Pro Thr Phe Ala  
660 665 670

Leu Gly Glu Leu Tyr Pro Pro Leu Ile Asn Leu Trp Glu Ala Gly Lys  
675 680 685

Glu Lys Ser Thr Ser Leu Lys Val Lys Ala Thr Val Ile Gly Leu Pro  
690 695 700

Thr Asn Met Ser  
705

<210> 70  
<211> 1305  
<212> DNA  
<213> Homo sapiens

<400> 70  
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agctgcagcc ttttgaaaca cgcaagaagg aaatcaatag tgtggacagg gctggaacct 120  
ttaccacgct tgttgagta gatgaggaat gggctcgtga ttatgctgac attccagcat 180  
gaatctggta gacctgtggt taaccggttc cctctccatg tgtctcctcc taaaaagttt 240  
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ttcctctggg ggtttaaatg tcacctgtag caatgcaaat ctcaaggaaa tacctagaga 360  
tcttctcctt gaaacagtct tactgtatct ggactccaat cagatcacat ctattcccaa 420  
tgaaatthtt aaggacctcc atcaactgag agttctcaac ctgtccaaaa atggcattga 480  
gtttatcgat gagcatgcct tcaaaggagt agctgaaacc ttgcagactc tggacttgtc 540  
cgacaatcgg attcaaagtg tgcacaaaaa tgccttcaat aacctgaagg ccagggccag 600  
aattgccaac aaccctggc actgcgactg tactctacag caagttctga ggagcatggc 660  
gtccaatcat gagacagccc acaacgtgat ctgtaaaacg tccgtgttg atgaacatgc 720  
tggcagacca ttctcaatg ctgccaacga cgctgacctt tgtaacctcc ctaaaaaac 780  
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cctgccaaagc aggcagaaga aagcagatga acctgatgat attagcactg tggatatagt 960  
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ggtttacttc tcccatccat tgtaaacatt tgaaactttg tatttcagtt ttttttgaat 1080  
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cacccttaa ttgtaccccc gatggtatat ttctgagtaa gctactatct gaacattagt 1200  
tagatccatc tcaatttta ataatgaaat ttattttttt aattttaaaag caaataaaaag 1260  
cttaactttg aaccatggga aaaaaaaaaa aaaaaaaaaa aaaca 1305

<210> 71



<211> 259

<212> PRT

<213> Homo sapiens

<400> 71

Met Asn Leu Val Asp Leu Trp Leu Thr Arg Ser Leu Ser Met Cys Leu  
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Leu Leu Gln Ser Phe Val Leu Met Ile Leu Cys Phe His Ser Ala Ser  
20 25 30

Met Cys Pro Lys Gly Cys Leu Cys Ser Ser Ser Gly Gly Leu Asn Val  
35 40 45

Thr Cys Ser Asn Ala Asn Leu Lys Glu Ile Pro Arg Asp Leu Pro Pro  
50 55 60

Glu Thr Val Leu Leu Tyr Leu Asp Ser Asn Gln Ile Thr Ser Ile Pro  
65 70 75 80

Asn Glu Ile Phe Lys Asp Leu His Gln Leu Arg Val Leu Asn Leu Ser  
85 90 95

Lys Asn Gly Ile Glu Phe Ile Asp Glu His Ala Phe Lys Gly Val Ala  
100 105 110

Glu Thr Leu Gln Thr Leu Asp Leu Ser Asp Asn Arg Ile Gln Ser Val  
115 120 125

His Lys Asn Ala Phe Asn Asn Leu Lys Ala Arg Ala Arg Ile Ala Asn  
130 135 140

Asn Pro Trp His Cys Asp Cys Thr Leu Gln Gln Val Leu Arg Ser Met  
145 150 155 160

Ala Ser Asn His Glu Thr Ala His Asn Val Ile Cys Lys Thr Ser Val  
165 170 175

Leu Asp Glu His Ala Gly Arg Pro Phe Leu Asn Ala Ala Asn Asp Ala  
180 185 190

Asp Leu Cys Asn Leu Pro Lys Lys Thr Thr Asp Tyr Ala Met Leu Val  
195 200 205

Thr Met Phe Gly Trp Phe Thr Met Val Ile Ser Tyr Val Val Tyr Tyr  
210 215 220

Val Arg Gln Asn Gln Glu Asp Ala Arg Arg His Leu Glu Tyr Leu Lys  
225 230 235 240

Ser Leu Pro Ser Arg Gln Lys Lys Ala Asp Glu Pro Asp Asp Ile Ser  
245 250 255

Thr Val Val

<210> 72

<211> 2290  
 <212> DNA  
 <213> Homo sapiens

<400> 72  
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 tgctgggctc agtgctgtca ggctcgcca cgggctgccc gccccgctgc gaggctccg 180  
 cccaggaccg cgctgtgctg tgccaccgca agtgctttgt ggcagtcccc gagggcatcc 240  
 ccaccgagac gcgcctgctg gacctaggca agaaccgcat caaaacgctc aaccaggacg 300  
 agttcgccag cttcccgcac ctggaggagc tggagctcaa cgagaacatc gtgagcgccg 360  
 tggagccccg cgccttcaac aacctcttca acctccggac gctgggtctc cgagcaacc 420  
 gcctgaagct catcccgcta ggctcttca ctggcctcag caacctgacc aagcaggaca 480  
 tcagcgagaa caagatcggt atcctactgg actacatgtt tcaggacctg tacaacctca 540  
 agtcaactgga ggttggcgac aatgacctcg tctacatctc tcaccgcgcc ttcagcggcc 600  
 tcaacagcct ggagcagctg acgctggaga aatgcaacct gacctccatc cccaccgagg 660  
 cgctgtccca cctgcacggc ctcatcgctc tgaggctccg gcacctcaac atcaatgcca 720  
 tccgggacta ctcttcaag aggtgtgacc gactcaaggt cttggagatc tccactggc 780  
 cctacttga caccatgaca cccaactgcc tctacggcct caacctgacg tccctgtcca 840  
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 tgctccggct gcaggagatc cagctggtgg gcgggcagct ggccgtggtg gagccctatg 1020  
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 gcgacccgcc gcccgccatc ctctggctct caccgcgaaa gcacctggtc tcagccaaga 1440  
 gcaatgggcg gctcacagtc ttccctgatg gcacgctgga ggtgcgctac gccagggtac 1500  
 aggacaacgg cacgtacctg tgcacgcgg ccaacgcgg cggaacgac tccatgcccg 1560  
 cccacctgca tgtgcgcagc tactcgccc actggcccca tcagcccaac aagaccttcg 1620  
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 aaaaaaaaaa 2290

<210> 73  
 <211> 620  
 <212> PRT  
 <213> Homo sapiens

<400> 73  
 Met Gln Val Ser Lys Arg Met Leu Ala Gly Gly Val Arg Ser Met Pro  
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 Ser Pro Leu Leu Ala Cys Trp Gln Pro Ile Leu Leu Leu Val Leu Gly  
 20 25 30

Ser Val Leu Ser Gly Ser Ala Thr Gly Cys Pro Pro Arg Cys Glu Cys  
 35 40 45  
 Ser Ala Gln Asp Arg Ala Val Leu Cys His Arg Lys Cys Phe Val Ala  
 50 55 60  
 Val Pro Glu Gly Ile Pro Thr Glu Thr Arg Leu Leu Asp Leu Gly Lys  
 65 70 75 80  
 Asn Arg Ile Lys Thr Leu Asn Gln Asp Glu Phe Ala Ser Phe Pro His  
 85 90 95  
 Leu Glu Glu Leu Glu Leu Asn Glu Asn Ile Val Ser Ala Val Glu Pro  
 100 105 110  
 Gly Ala Phe Asn Asn Leu Phe Asn Leu Arg Thr Leu Gly Leu Arg Ser  
 115 120 125  
 Asn Arg Leu Lys Leu Ile Pro Leu Gly Val Phe Thr Gly Leu Ser Asn  
 130 135 140  
 Leu Thr Lys Gln Asp Ile Ser Glu Asn Lys Ile Val Ile Leu Leu Asp  
 145 150 155 160  
 Tyr Met Phe Gln Asp Leu Tyr Asn Leu Lys Ser Leu Glu Val Gly Asp  
 165 170 175  
 Asn Asp Leu Val Tyr Ile Ser His Arg Ala Phe Ser Gly Leu Asn Ser  
 180 185 190  
 Leu Glu Gln Leu Thr Leu Glu Lys Cys Asn Leu Thr Ser Ile Pro Thr  
 195 200 205  
 Glu Ala Leu Ser His Leu His Gly Leu Ile Val Leu Arg Leu Arg His  
 210 215 220  
 Leu Asn Ile Asn Ala Ile Arg Asp Tyr Ser Phe Lys Arg Leu Tyr Arg  
 225 230 235 240  
 Leu Lys Val Leu Glu Ile Ser His Trp Pro Tyr Leu Asp Thr Met Thr  
 245 250 255  
 Pro Asn Cys Leu Tyr Gly Leu Asn Leu Thr Ser Leu Ser Ile Thr His  
 260 265 270  
 Cys Asn Leu Thr Ala Val Pro Tyr Leu Ala Val Arg His Leu Val Tyr  
 275 280 285  
 Leu Arg Phe Leu Asn Leu Ser Tyr Asn Pro Ile Ser Thr Ile Glu Gly  
 290 295 300  
 Ser Met Leu His Glu Leu Leu Arg Leu Gln Glu Ile Gln Leu Val Gly  
 305 310 315 320  
 Gly Gln Leu Ala Val Val Glu Pro Tyr Ala Phe Arg Gly Leu Asn Tyr  
 325 330 335

Leu Arg Val Leu Asn Val Ser Gly Asn Gln Leu Thr Thr Leu Glu Glu  
 340 345 350  
 Ser Val Phe His Ser Val Gly Asn Leu Glu Thr Leu Ile Leu Asp Ser  
 355 360 365  
 Asn Pro Leu Ala Cys Asp Cys Arg Leu Leu Trp Val Phe Arg Arg Arg  
 370 375 380  
 Trp Arg Leu Asn Phe Asn Arg Gln Gln Pro Thr Cys Ala Thr Pro Glu  
 385 390 395 400  
 Phe Val Gln Gly Lys Glu Phe Lys Asp Phe Pro Asp Val Leu Leu Pro  
 405 410 415  
 Asn Tyr Phe Thr Cys Arg Arg Ala Arg Ile Arg Asp Arg Lys Ala Gln  
 420 425 430  
 Gln Val Phe Val Asp Glu Gly His Thr Val Gln Phe Val Cys Arg Ala  
 435 440 445  
 Asp Gly Asp Pro Pro Pro Ala Ile Leu Trp Leu Ser Pro Arg Lys His  
 450 455 460  
 Leu Val Ser Ala Lys Ser Asn Gly Arg Leu Thr Val Phe Pro Asp Gly  
 465 470 475 480  
 Thr Leu Glu Val Arg Tyr Ala Gln Val Gln Asp Asn Gly Thr Tyr Leu  
 485 490 495  
 Cys Ile Ala Ala Asn Ala Gly Gly Asn Asp Ser Met Pro Ala His Leu  
 500 505 510  
 His Val Arg Ser Tyr Ser Pro Asp Trp Pro His Gln Pro Asn Lys Thr  
 515 520 525  
 Phe Ala Phe Ile Ser Asn Gln Pro Gly Glu Gly Glu Ala Asn Ser Thr  
 530 535 540  
 Arg Ala Thr Val Pro Phe Pro Phe Asp Ile Lys Thr Leu Ile Ile Ala  
 545 550 555 560  
 Thr Thr Met Gly Phe Ile Ser Phe Leu Gly Val Val Leu Phe Cys Leu  
 565 570 575  
 Val Leu Leu Phe Leu Trp Ser Arg Gly Lys Gly Asn Thr Lys His Asn  
 580 585 590  
 Ile Glu Ile Glu Tyr Val Pro Arg Lys Ser Asp Ala Gly Ile Ser Ser  
 595 600 605  
 Ala Asp Ala Pro Arg Lys Phe Asn Met Lys Met Ile  
 610 615 620

<210> 74  
 <211> 22  
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 74

tcacctggag cctttattgg cc

22

<210> 75

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 75

ataccagcta taaccaggct gcg

23

<210> 76

<211> 52

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 76

caacagtaag tggtttgatg ctcttccaaa tctagagatt ctgatgattg  
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50

52

<210> 77

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 77

ccatgtgtct cctcctacaa ag

22

<210> 78

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 78

gggaatagat gtgatctgat tgg

23

<210> 79  
 <211> 50  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Synthetic  
         oligonucleotide probe  
  
 <400> 79  
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 <210> 80  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Synthetic  
         oligonucleotide probe  
  
 <400> 80  
 agcaaccgcc tgaagctcat cc 22  
  
 <210> 81  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Synthetic  
         oligonucleotide probe  
  
 <400> 81  
 aaggcgcggt gaaagatgta gacg 24  
  
 <210> 82  
 <211> 50  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Synthetic  
         oligonucleotide probe  
  
 <400> 82  
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 <210> 83  
 <211> 1685  
 <212> DNA  
 <213> Homo sapiens  
  
 <400> 83  
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 acatcgtagt ccacccccctc cccatcccca gccccggggg attcaggctc gccagcgccc 120

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ccctttccgt ggcttctctg catttggtt attattatt ttgtaacaat cccaaatcaa 1620
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aaaca 1685

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<210> 84  
 <211> 398  
 <212> PRT  
 <213> Homo sapiens

<400> 84  
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 Pro Trp Thr Ser Asp Glu Thr Val Val Ala Gly Gly Thr Val Val Leu  
 35 40 45  
 Lys Cys Gln Val Lys Asp His Glu Asp Ser Ser Leu Gln Trp Ser Asn  
 50 55 60  
 Pro Ala Gln Gln Thr Leu Tyr Phe Gly Glu Lys Arg Ala Leu Arg Asp  
 65 70 75 80  
 Asn Arg Ile Gln Leu Val Thr Ser Thr Pro His Glu Leu Ser Ile Ser  
 85 90 95  
 Ile Ser Asn Val Ala Leu Ala Asp Glu Gly Glu Tyr Thr Cys Ser Ile  
 100 105 110  
 Phe Thr Met Pro Val Arg Thr Ala Lys Ser Leu Val Thr Val Leu Gly  
 115 120 125

Ile	Pro	Gln	Lys	Pro	Ile	Ile	Thr	Gly	Tyr	Lys	Ser	Ser	Leu	Arg	Glu	
130						135					140					
Lys	Asp	Thr	Ala	Thr	Leu	Asn	Cys	Gln	Ser	Ser	Gly	Ser	Lys	Pro	Ala	
145					150					155					160	
Ala	Arg	Leu	Thr	Trp	Arg	Lys	Gly	Asp	Gln	Glu	Leu	His	Gly	Glu	Pro	
				165					170					175		
Thr	Arg	Ile	Gln	Glu	Asp	Pro	Asn	Gly	Lys	Thr	Phe	Thr	Val	Ser	Ser	
		180						185					190			
Ser	Val	Thr	Phe	Gln	Val	Thr	Arg	Glu	Asp	Asp	Gly	Ala	Ser	Ile	Val	
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Cys	Ser	Val	Asn	His	Glu	Ser	Leu	Lys	Gly	Ala	Asp	Arg	Ser	Thr	Ser	
210						215					220					
Gln	Arg	Ile	Glu	Val	Leu	Tyr	Thr	Pro	Thr	Ala	Met	Ile	Arg	Pro	Asp	
225					230					235					240	
Pro	Pro	His	Pro	Arg	Glu	Gly	Gln	Lys	Leu	Leu	Leu	His	Cys	Glu	Gly	
				245					250					255		
Arg	Gly	Asn	Pro	Val	Pro	Gln	Gln	Tyr	Leu	Trp	Glu	Lys	Glu	Gly	Ser	
			260					265					270			
Val	Pro	Pro	Leu	Lys	Met	Thr	Gln	Glu	Ser	Ala	Leu	Ile	Phe	Pro	Phe	
		275					280					285				
Leu	Asn	Lys	Ser	Asp	Ser	Gly	Thr	Tyr	Gly	Cys	Thr	Ala	Thr	Ser	Asn	
290						295					300					
Met	Gly	Ser	Tyr	Lys	Ala	Tyr	Tyr	Thr	Leu	Asn	Val	Asn	Asp	Pro	Ser	
305					310					315					320	
Pro	Val	Pro	Ser	Ser	Ser	Ser	Thr	Tyr	His	Ala	Ile	Ile	Gly	Gly	Ile	
				325					330					335		
Val	Ala	Phe	Ile	Val	Phe	Leu	Leu	Leu	Ile	Met	Leu	Ile	Phe	Leu	Gly	
			340					345					350			
His	Tyr	Leu	Ile	Arg	His	Lys	Gly	Thr	Tyr	Leu	Thr	His	Glu	Ala	Lys	
		355					360					365				
Gly	Ser	Asp	Asp	Ala	Pro	Asp	Ala	Asp	Thr	Ala	Ile	Ile	Asn	Ala	Glu	
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<210> 85  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence



<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 85  
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<210> 86  
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 <212> DNA  
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<220>  
 <223> Description of Artificial Sequence: Synthetic  
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<400> 86  
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<210> 87  
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 <212> DNA  
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 <223> Description of Artificial Sequence: Synthetic  
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<400> 87  
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<210> 88  
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 <223> Description of Artificial Sequence: Synthetic  
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<400> 88  
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<210> 89  
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<400> 89  
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<210> 90  
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<212> DNA  
<213> Homo sapiens

<400> 90

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<211> 696  
<212> PRT  
<213> Homo sapiens

<400> 91

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Phe	Tyr	Asn	Ala	Val	Ser	Leu	His	Met	Glu	Asn	Asn	Gly	Leu	His	Glu		85	90						95		
Ile	Val	Pro	Gly	Ala	Phe	Leu	Gly	Leu	Gln	Leu	Val	Lys	Arg	Leu	His		100	105						110		
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Leu	Asp	Asp	Leu	Glu	Tyr	Leu	Gln	Ala	Asp	Phe	Asn	Leu	Leu	Arg	Asp	130		135					140			
Ile	Asp	Pro	Gly	Ala	Phe	Gln	Asp	Leu	Asn	Lys	Leu	Glu	Val	Leu	Ile	145		150			155					160
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Cys	Glu	Ala	Pro	Thr	Arg	Leu	Gln	Gly	Lys	Asp	Leu	Asn	Glu	Thr	Thr		245	250						255		
Glu	Gln	Asp	Leu	Cys	Pro	Leu	Lys	Asn	Arg	Val	Asp	Ser	Ser	Leu	Pro		260	265						270		
Ala	Pro	Pro	Ala	Gln	Glu	Glu	Thr	Phe	Ala	Pro	Gly	Pro	Leu	Pro	Thr		275	280					285			
Pro	Phe	Lys	Thr	Asn	Gly	Gln	Glu	Asp	His	Ala	Thr	Pro	Gly	Ser	Ala	290		295			300					

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 Asp Leu Lys Pro Lys Leu Ser Asn Val Gln Glu Leu Phe Leu Arg Asp  
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 Asn Lys Ile His Ser Ile Arg Lys Ser His Phe Val Asp Tyr Lys Asn  
 385 390 395 400  
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 Gly Thr Phe Asn Ala Met Pro Lys Leu Arg Ile Leu Ile Leu Asn Asn  
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 Gly Val Leu Asp Gln Leu Thr Ser Ile Ile Gln Ile Asp Leu His Gly  
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 530 535 540  
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 545 550 555 560  
 Pro Val Asn Phe Phe Arg Lys Asp Phe Met Leu Leu Ser Asn Asp Glu  
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 Ser Lys Asn Ser Thr Gly Leu Ala Glu Thr Gly Thr His Ser Asn Ser  
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Tyr Leu Asp Thr Ser Arg Val Ser Ile Ser Val Leu Val Pro Gly Leu  
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Leu Leu Val Phe Val Thr Ser Ala Phe Thr Val Val Gly Met Leu Val  
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Phe Ile Leu Arg Asn Arg Lys Arg Ser Lys Arg Arg Asp Ala Asn Ser  
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Ser Ala Ser Glu Ile Asn Ser Leu Gln Thr Val Cys Asp Ser Ser Tyr  
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<210> 92  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 92  
gttggatctg ggcaacaata ac 22

<210> 93  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 93  
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<210> 94  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 94  
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<210> 95  
<211> 2226  
<212> DNA

<213> Homo sapiens

<400> 95

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<210> 96

<211> 490

<212> PRT

<213> Homo sapiens

<400> 96

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Ala Ser Gly Ala Cys Tyr Ser Leu His His Ala Thr Met Lys Arg Gln
          35             40             45
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Arg Ala Gly Ala Glu Leu Arg Ala Val Leu Ala Leu Leu Arg Ala Gly  
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Pro Gly Pro Gly Gly Gly Ser Lys Asp Leu Leu Phe Trp Val Ala Leu  
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Glu Arg Arg Arg Ser His Cys Thr Leu Glu Asn Glu Pro Leu Arg Gly  
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Phe Ser Trp Leu Ser Ser Asp Pro Gly Gly Leu Glu Ser Asp Thr Leu  
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Gln Trp Val Glu Glu Pro Gln Arg Ser Cys Thr Ala Arg Arg Cys Ala  
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Val Leu Gln Ala Thr Gly Gly Val Glu Pro Ala Gly Trp Lys Glu Met  
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Arg Cys His Leu Arg Ala Asn Gly Tyr Leu Cys Lys Tyr Gln Phe Glu  
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Val Leu Cys Pro Ala Pro Arg Pro Gly Ala Ala Ser Asn Leu Ser Tyr  
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Arg Ala Pro Phe Gln Leu His Ser Ala Ala Leu Asp Phe Ser Pro Pro  
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Thr Cys Ile Ala Asp Glu Ile Gly Ala Arg Trp Asp Lys Leu Ser Gly  
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Ala Glu Leu Pro Asn Cys Leu Asp Asp Leu Gly Gly Phe Ala Cys Glu  
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Cys Ala Thr Gly Phe Glu Leu Gly Lys Asp Gly Arg Ser Cys Val Thr  
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Ser Gly Glu Gly Gln Pro Thr Leu Gly Gly Thr Gly Val Pro Thr Arg  
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Arg Pro Pro Ala Thr Ala Thr Ser Pro Val Pro Gln Arg Thr Trp Pro  
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Pro Arg Lys Glu Ser Met Gly Pro Pro Gly Leu Glu Ser Asp Pro Glu  
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Pro Ala Ala Leu Gly Ser Ser Ser Ala His Cys Thr Asn Asn Gly Val  
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<210> 97

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 97

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24

<210> 98

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 98

tgaccagtgg ggaaggacag

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<210> 99

<211> 20

<212> DNA

<213> Artificial Sequence

<220>



<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 99

acagagcaga gggtgccttg

20

<210> 100

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 100

tcagggacaa gtggtgtctc tccc

24

<210> 101

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 101

tcaggaagg agtgtgcagt tctg

24

<210> 102

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 102

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<210> 103

<211> 2026

<212> DNA

<213> Homo sapiens

<400> 103

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attttagaat tgagttgtgt gaagatgtca aaaaaagatt ttagaagtgc aatatattata 1920
gtgttatttg tttcaccttc aagcctttgc cctgaggtgt tacaatcttg tcttgcgttt 1980
tctaaatcaa tgcttaataa aatattttta aaggaaaaaa aaaaaa 2026

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<210> 104
<211> 415
<212> PRT
<213> Homo sapiens

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<400> 104
Met Arg Gly Ala Asn Ala Trp Ala Pro Leu Cys Leu Leu Leu Ala Ala
  1             5             10             15

Ala Thr Gln Leu Ser Arg Gln Gln Ser Pro Glu Arg Pro Val Phe Thr
      20             25             30

Cys Gly Gly Ile Leu Thr Gly Glu Ser Gly Phe Ile Gly Ser Glu Gly
      35             40             45

Phe Pro Gly Val Tyr Pro Pro Asn Ser Lys Cys Thr Trp Lys Ile Thr
      50             55             60

Val Pro Glu Gly Lys Val Val Val Leu Asn Phe Arg Phe Ile Asp Leu
      65             70             75             80

Glu Ser Asp Asn Leu Cys Arg Tyr Asp Phe Val Asp Val Tyr Asn Gly
      85             90             95

His Ala Asn Gly Gln Arg Ile Gly Arg Phe Cys Gly Thr Phe Arg Pro
      100            105            110

Gly Ala Leu Val Ser Ser Gly Asn Lys Met Met Val Gln Met Ile Ser
      115            120            125

Asp Ala Asn Thr Ala Gly Asn Gly Phe Met Ala Met Phe Ser Ala Ala

```

130	135	140														
Glu	Pro	Asn	Glu	Arg	Gly	Asp	Gln	Tyr	Cys	Gly	Gly	Leu	Leu	Asp	Arg	
145					150					155					160	
Pro	Ser	Gly	Ser	Phe	Lys	Thr	Pro	Asn	Trp	Pro	Asp	Arg	Asp	Tyr	Pro	
				165					170					175		
Ala	Gly	Val	Thr	Cys	Val	Trp	His	Ile	Val	Ala	Pro	Lys	Asn	Gln	Leu	
			180					185					190			
Ile	Glu	Leu	Lys	Phe	Glu	Lys	Phe	Asp	Val	Glu	Arg	Asp	Asn	Tyr	Cys	
	195						200					205				
Arg	Tyr	Asp	Tyr	Val	Ala	Val	Phe	Asn	Gly	Gly	Glu	Val	Asn	Asp	Ala	
	210					215					220					
Arg	Arg	Ile	Gly	Lys	Tyr	Cys	Gly	Asp	Ser	Pro	Pro	Ala	Pro	Ile	Val	
225					230					235					240	
Ser	Glu	Arg	Asn	Glu	Leu	Leu	Ile	Gln	Phe	Leu	Ser	Asp	Leu	Ser	Leu	
			245						250					255		
Thr	Ala	Asp	Gly	Phe	Ile	Gly	His	Tyr	Ile	Phe	Arg	Pro	Lys	Lys	Leu	
		260						265					270			
Pro	Thr	Thr	Thr	Glu	Gln	Pro	Val	Thr	Thr	Thr	Phe	Pro	Val	Thr	Thr	
		275					280					285				
Gly	Leu	Lys	Pro	Thr	Val	Ala	Leu	Cys	Gln	Gln	Lys	Cys	Arg	Arg	Thr	
	290					295					300					
Gly	Thr	Leu	Glu	Gly	Asn	Tyr	Cys	Ser	Ser	Asp	Phe	Val	Leu	Ala	Gly	
305					310					315					320	
Thr	Val	Ile	Thr	Thr	Ile	Thr	Arg	Asp	Gly	Ser	Leu	His	Ala	Thr	Val	
			325						330					335		
Ser	Ile	Ile	Asn	Ile	Tyr	Lys	Glu	Gly	Asn	Leu	Ala	Ile	Gln	Gln	Ala	
			340					345					350			
Gly	Lys	Asn	Met	Ser	Ala	Arg	Leu	Thr	Val	Val	Cys	Lys	Gln	Cys	Pro	
		355					360					365				
Leu	Leu	Arg	Arg	Gly	Leu	Asn	Tyr	Ile	Ile	Met	Gly	Gln	Val	Gly	Glu	
	370					375					380					
Asp	Gly	Arg	Gly	Lys	Ile	Met	Pro	Asn	Ser	Phe	Ile	Met	Met	Phe	Lys	
385				390						395					400	
Thr	Lys	Asn	Gln	Lys	Leu	Leu	Asp	Ala	Leu	Lys	Asn	Lys	Gln	Cys		
			405						410					415		

<210> 105

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 105

ccgattcata gacctcgaga gt

22

<210> 106

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 106

gtcaaggagt cctccacaat ac

22

<210> 107

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 107

gtgtacaatg gccatgccaa tggccagcgc attggccgct tctgt

45

<210> 108

<211> 1838

<212> DNA

<213> Homo sapiens

<400> 108

cggacgcgtg ggcggacgcg tgggcggccc acggcgcccg cgggctgggg cggtcgcttc 60  
ttccttctcc gtggcctacg agggtcceca gcctgggtaa agatggccc atggcccccg 120  
aagggcctag tcccagctgt gctctggggc ctcagcctct tcctcaacct cccaggacct 180  
atctggctcc agccctctcc acctcccag tcttctcccc cgctcagcc catccgtgt 240  
catacctgcc ggggactggt tgacagcttt aacaagggcc tggagagaac catccgggac 300  
aactttggag gtggaaacac tgccctgggag gaagagaatt tgtccaaata caaagacagt 360  
gagacccgcc tggtagaggt gctggagggt gtgtgcagca agtcagactt cgagtgccac 420  
cgctgctgg agctgagtga ggagctggtg gagagctggt ggtttcaca gcagcaggag 480  
gccccggacc tcttcagtg gctgtgctca gattccctga agctctgctg ccccgaggc 540  
acctcgggc cctcctgcct tccctgtcct gggggaacag agaggccctg cggtggctac 600  
gggcagtgtg aaggagaagg gacacgaggg ggcagcgggc actgtgactg ccaagccggc 660  
tacgggggtg aggcctgtgg ccagtgtggc cttggctact ttgaggcaga acgcaacgcc 720  
agccatctgg tatgttcggc ttgttttggc ccctgtgccc gatgtcagg acctgaggaa 780  
tcaaactgtt tgcaatgcaa gaagggtctg gccctgcatc acctcaagtg ttagacatt 840  
gatgagtgtg gcacagaggg agccaactgt ggagctgacc aattctgctg gaacactgag 900  
ggctcctatg agtgccgaga ctgtgccaag gcctgcctag gctgcatggg ggcagggcc 960  
ggtcgtgta agaagtgtag ccctggctat cagcaggtgg gctccaagtg tctcgatgtg 1020  
gatgagtgtg agacagagggt gtgtccggga gagaacaagc agtgtgaaaa caccgagggc 1080  
ggttatcgct gcatctgtgc cgagggtctac aagcagatgg aaggcatctg tgtgaaggag 1140

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cagatcccag agtcagcagg cttctttctca gagatgacag aagacgagtt ggtgggtgctg 1200
cagcagatgt tctttggcat catcatctgt gcactggcca cgctggctgc taagggcgac 1260
ttggtgttca ccgccatctt cattggggct gtggcggcca tgactggcta ctggttgta 1320
gagcgcagtg accgtgtgct ggagggcttc atcaaggcca gataatcgcg gccaccacct 1380
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caggacagct tggtttattt ttgagagtgg ggtaagcacc cctacctgcc ttacagagca 1500
gcccaggtag ccaggcccg gcagacaagg cccctgggg aaaaagtagc cctgaagggtg 1560
gataccatga gctcttcacc tggcggggac tggcaggctt cacaatgtgt gaatttcaaa 1620
agtttttctt taatgggtggc tgctagagct ttggcccctg cttaggatta ggtggctctc 1680
acaggggtgg ggccatcaca gctccctcct gccagctgca tgctgccagt tcctgttctg 1740
tgttcaccac atccccacac cccattgcca cttatttatt catctcagga aataaagaaa 1800
ggtcttgga agttaaaaaa aaaaaaaaaa aaaaaaaa 1838

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<210> 109  
 <211> 420  
 <212> PRT  
 <213> Homo sapiens

```

<400> 109
Met Ala Pro Trp Pro Pro Lys Gly Leu Val Pro Ala Val Leu Trp Gly
  1              5              10              15

Leu Ser Leu Phe Leu Asn Leu Pro Gly Pro Ile Trp Leu Gln Pro Ser
      20              25              30

Pro Pro Pro Gln Ser Ser Pro Pro Pro Gln Pro His Pro Cys His Thr
      35              40              45

Cys Arg Gly Leu Val Asp Ser Phe Asn Lys Gly Leu Glu Arg Thr Ile
      50              55              60

Arg Asp Asn Phe Gly Gly Gly Asn Thr Ala Trp Glu Glu Glu Asn Leu
      65              70              75              80

Ser Lys Tyr Lys Asp Ser Glu Thr Arg Leu Val Glu Val Leu Glu Gly
      85              90              95

Val Cys Ser Lys Ser Asp Phe Glu Cys His Arg Leu Leu Glu Leu Ser
      100             105             110

Glu Glu Leu Val Glu Ser Trp Trp Phe His Lys Gln Gln Glu Ala Pro
      115             120             125

Asp Leu Phe Gln Trp Leu Cys Ser Asp Ser Leu Lys Leu Cys Cys Pro
      130             135             140

Ala Gly Thr Phe Gly Pro Ser Cys Leu Pro Cys Pro Gly Gly Thr Glu
      145             150             155             160

Arg Pro Cys Gly Gly Tyr Gly Gln Cys Glu Gly Glu Gly Thr Arg Gly
      165             170             175

Gly Ser Gly His Cys Asp Cys Gln Ala Gly Tyr Gly Gly Glu Ala Cys
      180             185             190

Gly Gln Cys Gly Leu Gly Tyr Phe Glu Ala Glu Arg Asn Ala Ser His
      195             200             205

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Leu Val Cys Ser Ala Cys Phe Gly Pro Cys Ala Arg Cys Ser Gly Pro  
 210 215 220  
 Glu Glu Ser Asn Cys Leu Gln Cys Lys Lys Gly Trp Ala Leu His His  
 225 230 235 240  
 Leu Lys Cys Val Asp Ile Asp Glu Cys Gly Thr Glu Gly Ala Asn Cys  
 245 250 255  
 Gly Ala Asp Gln Phe Cys Val Asn Thr Glu Gly Ser Tyr Glu Cys Arg  
 260 265 270  
 Asp Cys Ala Lys Ala Cys Leu Gly Cys Met Gly Ala Gly Pro Gly Arg  
 275 280 285  
 Cys Lys Lys Cys Ser Pro Gly Tyr Gln Gln Val Gly Ser Lys Cys Leu  
 290 295 300  
 Asp Val Asp Glu Cys Glu Thr Glu Val Cys Pro Gly Glu Asn Lys Gln  
 305 310 315 320  
 Cys Glu Asn Thr Glu Gly Gly Tyr Arg Cys Ile Cys Ala Glu Gly Tyr  
 325 330 335  
 Lys Gln Met Glu Gly Ile Cys Val Lys Glu Gln Ile Pro Glu Ser Ala  
 340 345 350  
 Gly Phe Phe Ser Glu Met Thr Glu Asp Glu Leu Val Val Leu Gln Gln  
 355 360 365  
 Met Phe Phe Gly Ile Ile Ile Cys Ala Leu Ala Thr Leu Ala Ala Lys  
 370 375 380  
 Gly Asp Leu Val Phe Thr Ala Ile Phe Ile Gly Ala Val Ala Ala Met  
 385 390 395 400  
 Thr Gly Tyr Trp Leu Ser Glu Arg Ser Asp Arg Val Leu Glu Gly Phe  
 405 410 415  
 Ile Lys Gly Arg  
 420

<210> 110

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 110

cctggctatc agcaggtggg ctccaagtgt ctcgatgtgg atgagtgtga

50

<210> 111

<211> 22

<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 111  
attctgctgtg aacactgagg gc 22

<210> 112  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 112  
atctgcttgt agccctcggc ac 22

<210> 113  
<211> 1616  
<212> DNA  
<213> Homo sapiens

<220>  
<221> modified\_base  
<222> (1461)..(1461)  
<223> a, t, c or g

<400> 113  
tgagaccctc ctgcagcctt ctcaagggac agccccactc tgcctcttgc tcctccaggg 60  
cagcaccatg cagccccctgt ggctctgctg ggcactctgg gtgttgcccc tggccagccc 120  
cggggcccgc ctgaccgggg agcagctcct gggcagcctg ctgcggcagc tgcagctcaa 180  
agaggtgccc accctggaca gggccgacat ggaggagctg gtcattcccca cccacgtgag 240  
ggccagtgac gtggccctgc tgcagcgag ccacggggac cgctcccgcg gaaagagggt 300  
cagccagagc ttccgagagg tggccggcag gttcctggcg ttggaggcca gcacacacct 360  
gctggtgttc ggcattggagc agcggctgcc gcccaacagc gagctggtgc aggccgtgct 420  
gcggctcttc caggagccgg tccccaaagg cgcgctgcac aggcacgggc ggctgtcccc 480  
gcgcagcgcc cgggcccggg tgaccgtcga gtggctgcgc gtccgcgacg acggctccaa 540  
ccgcacctcc ctcatcgact ccaggctggt gtccgtccac gagagcggct ggaaggcctt 600  
cgacgtgacc gaggccgtga acttctggca gcagctgagc cggccccggc agccgtgctg 660  
gctacaggtg tcggtgcaga gggagcatct gggcccgtg gcgtccggcg cccacaagct 720  
ggtccgcttt gcctcgagcagg gggcgccagc cgggcttggg gagccccagc tggagctgca 780  
caccctggac cttggggact atggagctca gggcgactgt gacctgaag caccaatgac 840  
cgagggcacc cgctgctgcc gccaggagat gtacattgac ctgcagggga tgaagtgggc 900  
cgagaactgg gtgctggagc ccccgggctt cctggcttat gagtgtgtgg gcacctgccg 960  
gcagcccccg gaggccctgg ccttcaagt ggcgtttctg gggcctcgac agtgcacgac 1020  
ctcgagact gactcgctgc ccatgatcgt cagcatcaag gagggaggca ggaccaggcc 1080  
ccagggtgtc agcctgcccc acatgagggt gcagaagtgc agctgtgcct cggatggtgc 1140  
gctcgtgccca aggaggtcc agccataggc gcctagtgtg gccatcgagg gacttgactt 1200  
gtgtgtgttt ctgaagtgtt cgagggtacc aggagagctg gcgatgactg aactgctgat 1260  
ggacaaatgc tctgtgctct ctagttagcc ctgaatttgc ttcctctgac aagttacctc 1320  
acctaatttt tgcttctcag gaatgagaat ctttggccac tggagagccc ttgctcagtt 1380  
ttctctattc ttattattca ctgcactata ttctaagcac ttacatgtgg agatactgta 1440

acctgagggc agaaagccca ntgtgtcatt gtttacttgt cctgtcactg gatctgggct 1500  
 aaagtcctcc accaccactc tggacctaag acctgggggt aagtgtgggt tgtgcatccc 1560  
 caatccagat aataaagact ttgtaaaaca tgaataaaac acattttatt ctaaaa 1616

<210> 114  
 <211> 366  
 <212> PRT  
 <213> Homo sapiens

<400> 114  
 Met Gln Pro Leu Trp Leu Cys Trp Ala Leu Trp Val Leu Pro Leu Ala  
   1                  5                  10                  15  
 Ser Pro Gly Ala Ala Leu Thr Gly Glu Gln Leu Leu Gly Ser Leu Leu  
                   20                  25                  30  
 Arg Gln Leu Gln Leu Lys Glu Val Pro Thr Leu Asp Arg Ala Asp Met  
                   35                  40                  45  
 Glu Glu Leu Val Ile Pro Thr His Val Arg Ala Gln Tyr Val Ala Leu  
   50                  55                  60  
 Leu Gln Arg Ser His Gly Asp Arg Ser Arg Gly Lys Arg Phe Ser Gln  
   65                  70                  75                  80  
 Ser Phe Arg Glu Val Ala Gly Arg Phe Leu Ala Leu Glu Ala Ser Thr  
                   85                  90                  95  
 His Leu Leu Val Phe Gly Met Glu Gln Arg Leu Pro Pro Asn Ser Glu  
                   100                  105                  110  
 Leu Val Gln Ala Val Leu Arg Leu Phe Gln Glu Pro Val Pro Lys Ala  
   115                  120                  125  
 Ala Leu His Arg His Gly Arg Leu Ser Pro Arg Ser Ala Arg Ala Arg  
   130                  135                  140  
 Val Thr Val Glu Trp Leu Arg Val Arg Asp Asp Gly Ser Asn Arg Thr  
   145                  150                  155                  160  
 Ser Leu Ile Asp Ser Arg Leu Val Ser Val His Glu Ser Gly Trp Lys  
                   165                  170                  175  
 Ala Phe Asp Val Thr Glu Ala Val Asn Phe Trp Gln Gln Leu Ser Arg  
                   180                  185                  190  
 Pro Arg Gln Pro Leu Leu Leu Gln Val Ser Val Gln Arg Glu His Leu  
   195                  200                  205  
 Gly Pro Leu Ala Ser Gly Ala His Lys Leu Val Arg Phe Ala Ser Gln  
   210                  215                  220  
 Gly Ala Pro Ala Gly Leu Gly Glu Pro Gln Leu Glu Leu His Thr Leu  
   225                  230                  235                  240  
 Asp Leu Gly Asp Tyr Gly Ala Gln Gly Asp Cys Asp Pro Glu Ala Pro  
                   245                  250                  255



Met Thr Glu Gly Thr Arg Cys Cys Arg Gln Glu Met Tyr Ile Asp Leu  
260 265 270

Gln Gly Met Lys Trp Ala Glu Asn Trp Val Leu Glu Pro Pro Gly Phe  
275 280 285

Leu Ala Tyr Glu Cys Val Gly Thr Cys Arg Gln Pro Pro Glu Ala Leu  
290 295 300

Ala Phe Lys Trp Pro Phe Leu Gly Pro Arg Gln Cys Ile Ala Ser Glu  
305 310 315 320

Thr Asp Ser Leu Pro Met Ile Val Ser Ile Lys Glu Gly Gly Arg Thr  
325 330 335

Arg Pro Gln Val Val Ser Leu Pro Asn Met Arg Val Gln Lys Cys Ser  
340 345 350

Cys Ala Ser Asp Gly Ala Leu Val Pro Arg Arg Leu Gln Pro  
355 360 365

<210> 115

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 115

aggactgccca taacttgccct g

21

<210> 116

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 116

ataggagttg aagcagcgct gc

22

<210> 117

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 117

tgtgtggaca tagacgagtg ccgctaccgc tactgccagc accgc

45

<210> 118  
 <211> 1857  
 <212> DNA  
 <213> Homo sapiens

<400> 118  
 gtctgttccc aggagtcctt cggcgggctgt tgtgtcagtgc gcctgatcgc gatggggaca 60  
 aaggcgcaag tgcagaggaa actgttgtgc ctcttcataat tggcgatcct gttgtgctcc 120  
 ctggcattgg gcagtgttac agtgcaactct tctgaacctg aagtcagaat tcctgagaat 180  
 aatcctgtga agttgtcctg tgcctactcg ggcttttctt ctcccctgtg ggagtggaa 240  
 tttgaccaag gagacaccac cagactcggt tgctataata acaagatcac agcttcctat 300  
 gaggaccggg tgaccttctt gccaaactggt atcaccttca agtccgtgac acgggaagac 360  
 actgggacat acacttgtat ggtctctgag gaaggcggca acagctatgg ggaggtcaag 420  
 gtcaagctca tctgtcttgt gcctccatcc aagcctacag ttaacatccc ctctctgcc 480  
 accattggga accgggcagt gctgacatgc tcagaacaag atggttcccc accttctgaa 540  
 tacacctggt tcaaagatgg gatagtgatg cctacgaatc ccaaaagcac ccgtgccttc 600  
 agcaactctt cctatgtcct gaatcccaca acaggagagc tggcttttga tcccctgtca 660  
 gcctctgata ctggagaata cagctgtgag gcacggaatg ggtatgggac acccatgact 720  
 tcaaagtctg tgcgcatgga agctgtggag cggaatgtgg gggatcatcg ggagccgctc 780  
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 agtgcccgaa gtgaaggaga attcaaacag acctcgatc tctgtgtgtg agcctggctg 960  
 gctcaccgcc tatcatctgc atttgcctta ctcagggtgt accggactct ggcccctgat 1020  
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 tcggatgtgt ttttaataat gtcagctatg tgccccatcc tccttcatgc cctccctccc 1140  
 tttcctacca ctgctgagtgc gcctggaact tgttttaaagt gtttattccc catttctttg 1200  
 agggatcagg aaggaatcct gggatgcca ttgacttccc ttctaagtag acagcaaaaa 1260  
 tggcgggggt cgcaggaatc tgcactcaac tgcccacctg gctggcaggg atctttgaat 1320  
 aggtatcttg agcttggttc tgggctcttt ccttgtgtac tgacgaccag ggccagctgt 1380  
 tctagagcgg gaattagagg cttagagcggc tgaaatgggt gtttgggtgat gacactgggg 1440  
 tccttccatc tctggggccc actctcttct gtcttcccat gggaagtgcc actgggatcc 1500  
 ctctgccctg tcttctgaa tacaagctga ctgacattga ctgtgtctgt ggaaaatggg 1560  
 agctcttgtt gtggagagca tagtaaaatt tcagagaact tgaagccaaa aggatttaaa 1620  
 accgctgctc taaagaaaag aaaactggag gctgggcgca gtggctcacg cctgtaatcc 1680  
 cagaggctga ggcaggcgga tcacctgagg tcgggagttc gggatcagcc tgaccaacat 1740  
 ggagaaaccc tactggaaat acaaagttag ccaggcatgg tgggtcatgc ctgtagtccc 1800  
 agctgctcag gagcctggca acaagagcaa aactccagct caaaaaaaaa aaaaaaa 1857

<210> 119  
 <211> 299  
 <212> PRT  
 <213> Homo sapiens

<400> 119  
 Met Gly Thr Lys Ala Gln Val Glu Arg Lys Leu Leu Cys Leu Phe Ile  
 1 5 10 15  
 Leu Ala Ile Leu Leu Cys Ser Leu Ala Leu Gly Ser Val Thr Val His  
 20 25 30  
 Ser Ser Glu Pro Glu Val Arg Ile Pro Glu Asn Asn Pro Val Lys Leu  
 35 40 45  
 Ser Cys Ala Tyr Ser Gly Phe Ser Ser Pro Arg Val Glu Trp Lys Phe  
 50 55 60

Asp	Gln	Gly	Asp	Thr	Thr	Arg	Leu	Val	Cys	Tyr	Asn	Asn	Lys	Ile	Thr	65	70	75	80
Ala	Ser	Tyr	Glu	Asp	Arg	Val	Thr	Phe	Leu	Pro	Thr	Gly	Ile	Thr	Phe	85	90	95	
Lys	Ser	Val	Thr	Arg	Glu	Asp	Thr	Gly	Thr	Tyr	Thr	Cys	Met	Val	Ser	100	105	110	
Glu	Glu	Gly	Gly	Asn	Ser	Tyr	Gly	Glu	Val	Lys	Val	Lys	Leu	Ile	Val	115	120	125	
Leu	Val	Pro	Pro	Ser	Lys	Pro	Thr	Val	Asn	Ile	Pro	Ser	Ser	Ala	Thr	130	135	140	
Ile	Gly	Asn	Arg	Ala	Val	Leu	Thr	Cys	Ser	Glu	Gln	Asp	Gly	Ser	Pro	145	150	155	160
Pro	Ser	Glu	Tyr	Thr	Trp	Phe	Lys	Asp	Gly	Ile	Val	Met	Pro	Thr	Asn	165	170	175	
Pro	Lys	Ser	Thr	Arg	Ala	Phe	Ser	Asn	Ser	Ser	Tyr	Val	Leu	Asn	Pro	180	185	190	
Thr	Thr	Gly	Glu	Leu	Val	Phe	Asp	Pro	Leu	Ser	Ala	Ser	Asp	Thr	Gly	195	200	205	
Glu	Tyr	Ser	Cys	Glu	Ala	Arg	Asn	Gly	Tyr	Gly	Thr	Pro	Met	Thr	Ser	210	215	220	
Asn	Ala	Val	Arg	Met	Glu	Ala	Val	Glu	Arg	Asn	Val	Gly	Val	Ile	Val	225	230	235	240
Ala	Ala	Val	Leu	Val	Thr	Leu	Ile	Leu	Leu	Gly	Ile	Leu	Val	Phe	Gly	245	250	255	
Ile	Trp	Phe	Ala	Tyr	Ser	Arg	Gly	His	Phe	Asp	Arg	Thr	Lys	Lys	Gly	260	265	270	
Thr	Ser	Ser	Lys	Lys	Val	Ile	Tyr	Ser	Gln	Pro	Ser	Ala	Arg	Ser	Glu	275	280	285	
Gly	Glu	Phe	Lys	Gln	Thr	Ser	Ser	Phe	Leu	Val						290	295		

<210> 120

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 120

tcgcggagct gtgttctgtt tccc

<210> 121  
<211> 50  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 121  
tgatcgcat ggggacaaag gcgcaagctc gagaggaaac tgttgtgcct 50

<210> 122  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 122  
acacctggtt caaagatggg 20

<210> 123  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 123  
taggaagagt tgctgaaggc acgg 24

<210> 124  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 124  
ttgccttact caggtgctac 20

<210> 125  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 125  
actcagcagt ggtaggaaag

20

<210> 126  
<211> 1210  
<212> DNA  
<213> Homo sapiens

<400> 126  
cagcgcgtgg ccggcgccgc tgtggggaca gcatgagcgg cggttggatg gcgcaggttg 60  
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gctcaggctc gtgcccaccc accaagttcc agtgccgcac cagtggctta tgcgtgcccc 240  
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gcaccggcgt cagtgactgc tctgggggaa ctgacaagaa actgcgcaac tgcagccgcc 420  
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aagttgcttc 1210

<210> 127  
<211> 282  
<212> PRT  
<213> Homo sapiens

<400> 127  
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Ala Ala Ala Ser Pro Leu Ser Thr Pro Thr Ser Ala Gln Ala Ala Gly  
35 40 45  
Pro Ser Ser Gly Ser Cys Pro Pro Thr Lys Phe Gln Cys Arg Thr Ser  
50 55 60  
Gly Leu Cys Val Pro Leu Thr Trp Arg Cys Asp Arg Asp Leu Asp Cys  
65 70 75 80  
Ser Asp Gly Ser Asp Glu Glu Glu Cys Arg Ile Glu Pro Cys Thr Gln  
85 90 95  
Lys Gly Gln Cys Pro Pro Pro Pro Gly Leu Pro Cys Pro Cys Thr Gly

100	105	110
Val Ser Asp Cys Ser Gly Gly Thr Asp Lys Lys Leu Arg Asn Cys Ser		
115	120	125
Arg Leu Ala Cys Leu Ala Gly Glu Leu Arg Cys Thr Leu Ser Asp Asp		
130	135	140
Cys Ile Pro Leu Thr Trp Arg Cys Asp Gly His Pro Asp Cys Pro Asp		
145	150	155
Ser Ser Asp Glu Leu Gly Cys Gly Thr Asn Glu Ile Leu Pro Glu Gly		
165	170	175
Asp Ala Thr Thr Met Gly Pro Pro Val Thr Leu Glu Ser Val Thr Ser		
180	185	190
Leu Arg Asn Ala Thr Thr Met Gly Pro Pro Val Thr Leu Glu Ser Val		
195	200	205
Pro Ser Val Gly Asn Ala Thr Ser Ser Ser Ala Gly Asp Gln Ser Gly		
210	215	220
Ser Pro Thr Ala Tyr Gly Val Ile Ala Ala Ala Val Leu Ser Ala		
225	230	235
Ser Leu Val Thr Ala Thr Leu Leu Leu Leu Ser Trp Leu Arg Ala Gln		
245	250	255
Glu Arg Leu Arg Pro Leu Gly Leu Leu Val Ala Met Lys Glu Ser Leu		
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Leu Leu Ser Glu Gln Lys Thr Ser Leu Pro		
275	280	

<210> 128

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 128

aagttccagt gccgcaccag tggc

24

<210> 129

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 129

ttggttccac agccgagctc gtcg

24

<210> 130

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 130

gaggaggagt gcaggattga gccatgtacc cagaaagggc aatgcccacc

50

<210> 131

<211> 1843

<212> DNA

<213> Homo sapiens

<220>

<221> modified\_base

<222> (1837)..(1837)

<223> a, t, c or g

<400> 131

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cagactcttg caagctggat gccctctgtg gatgaaagat gtatcatgga atgaaccgga 180
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gtttcttctt gacacagact gattaaaaat taaaagnaaa aaa 1843
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<210> 132  
<211> 490  
<212> PRT  
<213> Homo sapiens

<400> 132

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			20					25					30			
Ile	Leu	Trp	Phe	Gln	Leu	Ala	Leu	Cys	Phe	Gly	Pro	Ala	Gln	Leu	Thr	
		35					40					45				
Gly	Gly	Phe	Asp	Asp	Leu	Gln	Val	Cys	Ala	Asp	Pro	Gly	Ile	Pro	Glu	
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Asn	Gly	Phe	Arg	Thr	Pro	Ser	Gly	Gly	Val	Phe	Phe	Glu	Gly	Ser	Val	
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Ala	Arg	Phe	His	Cys	Gln	Asp	Gly	Phe	Lys	Leu	Lys	Gly	Ala	Thr	Lys	
				85					90					95		
Arg	Leu	Cys	Leu	Lys	His	Phe	Asn	Gly	Thr	Leu	Gly	Trp	Ile	Pro	Ser	
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Asp	Asn	Ser	Ile	Cys	Val	Gln	Glu	Asp	Cys	Arg	Ile	Pro	Gln	Ile	Glu	
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Asp	Ala	Glu	Ile	His	Asn	Lys	Thr	Tyr	Arg	His	Gly	Glu	Lys	Leu	Ile	
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Ile	Thr	Cys	His	Glu	Gly	Phe	Lys	Ile	Arg	Tyr	Pro	Asp	Leu	His	Asn	
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Met	Val	Ser	Leu	Cys	Arg	Asp	Asp	Gly	Thr	Trp	Asn	Asn	Leu	Pro	Ile	
				165					170					175		
Cys	Gln	Gly	Cys	Leu	Arg	Pro	Leu	Ala	Ser	Ser	Asn	Gly	Tyr	Val	Asn	
			180					185					190			
Ile	Ser	Glu	Leu	Gln	Thr	Ser	Phe	Pro	Val	Gly	Thr	Val	Ile	Ser	Tyr	
		195					200					205				
Arg	Cys	Phe	Pro	Gly	Phe	Lys	Leu	Asp	Gly	Ser	Ala	Tyr	Leu	Glu	Cys	
	210					215					220					
Leu	Gln	Asn	Leu	Ile	Trp	Ser	Ser	Ser	Pro	Pro	Arg	Cys	Leu	Ala	Leu	
225					230					235					240	
Glu	Ala	Gln	Val	Cys	Pro	Leu	Pro	Pro	Met	Val	Ser	His	Gly	Asp	Phe	
				245					250					255		
Val	Cys	His	Pro	Arg	Pro	Cys	Glu	Arg	Tyr	Asn	His	Gly	Thr	Val	Val	
			260					265						270		



Glu Phe Tyr Cys Asp Pro Gly Tyr Ser Leu Thr Ser Asp Tyr Lys Tyr  
           275                                  280                                  285  
 Ile Thr Cys Gln Tyr Gly Glu Trp Phe Pro Ser Tyr Gln Val Tyr Cys  
           290                                  295                                  300  
 Ile Lys Ser Glu Gln Thr Trp Pro Ser Thr His Glu Thr Leu Leu Thr  
 305                                  310                                  315                                  320  
 Thr Trp Lys Ile Val Ala Phe Thr Ala Thr Ser Val Leu Leu Val Leu  
                                   325                                  330                                  335  
 Leu Leu Val Ile Leu Ala Arg Met Phe Gln Thr Lys Phe Lys Ala His  
                                   340                                  345                                  350  
 Phe Pro Pro Arg Gly Pro Pro Arg Ser Ser Ser Ser Asp Pro Asp Phe  
                                   355                                  360                                  365  
 Val Val Val Asp Gly Val Pro Val Met Leu Pro Ser Tyr Asp Glu Ala  
           370                                  375                                  380  
 Val Ser Gly Gly Leu Ser Ala Leu Gly Pro Gly Tyr Met Ala Ser Val  
 385                                  390                                  395                                  400  
 Gly Gln Gly Cys Pro Leu Pro Val Asp Asp Gln Ser Pro Pro Ala Tyr  
                                   405                                  410                                  415  
 Pro Gly Ser Gly Asp Thr Asp Thr Gly Pro Gly Glu Ser Glu Thr Cys  
                                   420                                  425                                  430  
 Asp Ser Val Ser Gly Ser Ser Glu Leu Leu Gln Ser Leu Tyr Ser Pro  
                                   435                                  440                                  445  
 Pro Arg Cys Gln Glu Ser Thr His Pro Ala Ser Asp Asn Pro Asp Ile  
           450                                  455                                  460  
 Ile Ala Ser Thr Ala Glu Glu Val Ala Ser Thr Ser Pro Gly Ile His  
 465                                  470                                  475                                  480  
 His Ala His Trp Val Leu Phe Leu Arg Asn  
                                   485                                  490

<210> 133

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 133

atctctatc gctgctttcc cgg

23

<210> 134

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 134

agccaggatc gcagtaaaac tcc

23

<210> 135

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 135

atttaaactt gatgggtctg cgtatcttga gtgcttaca aaccttatct

50

<210> 136

<211> 1815

<212> DNA

<213> Homo sapiens

<400> 136

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ccgtagcgcc	cgagtgtcgg	ggggcgaccc	cgagtcgggc	catgaggccg	ggaaccgcgc	180
tacaggccgt	gctgctggcc	gtgctgctgg	tggggctgcg	ggccgcgacg	ggtcgcctgc	240
tgagtgcctc	ggatttggac	ctcagaggag	ggcagccagt	ctgccgggga	gggacacaga	300
ggccttggtt	taaagtcatt	tacttccatg	atacttctcg	aagactgaac	tttgaggaag	360
ccaaagaagc	ctgcaggagg	gatggaggcc	agctagtcag	catcgagtct	gaagatgaac	420
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agcaggaaaa aaaaa

1815

<210> 137

<211> 382

<212> PRT

<213> Homo sapiens

<400> 137

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Asp Leu Arg Gly Gly Gln Pro Val Cys Arg Gly Gly Thr Gln Arg Pro  
35 40 45

Cys Tyr Lys Val Ile Tyr Phe His Asp Thr Ser Arg Arg Leu Asn Phe  
50 55 60

Glu Glu Ala Lys Glu Ala Cys Arg Arg Asp Gly Gly Gln Leu Val Ser  
65 70 75 80

Ile Glu Ser Glu Asp Glu Gln Lys Leu Ile Glu Lys Phe Ile Glu Asn  
85 90 95

Leu Leu Pro Ser Asp Gly Asp Phe Trp Ile Gly Leu Arg Arg Arg Glu  
100 105 110

Glu Lys Gln Ser Asn Ser Thr Ala Cys Gln Asp Leu Tyr Ala Trp Thr  
115 120 125

Asp Gly Ser Ile Ser Gln Phe Arg Asn Trp Tyr Val Asp Glu Pro Ser  
130 135 140

Cys Gly Ser Glu Val Cys Val Val Met Tyr His Gln Pro Ser Ala Pro  
145 150 155 160

Ala Gly Ile Gly Gly Pro Tyr Met Phe Gln Trp Asn Asp Asp Arg Cys  
165 170 175

Asn Met Lys Asn Asn Phe Ile Cys Lys Tyr Ser Asp Glu Lys Pro Ala  
180 185 190

Val Pro Ser Arg Glu Ala Glu Gly Glu Glu Thr Glu Leu Thr Thr Pro  
195 200 205

Val Leu Pro Glu Glu Thr Gln Glu Glu Asp Ala Lys Lys Thr Phe Lys  
210 215 220

Glu Ser Arg Glu Ala Ala Leu Asn Leu Ala Tyr Ile Leu Ile Pro Ser  
225 230 235 240

Ile Pro Leu Leu Leu Leu Val Val Thr Thr Val Val Cys Trp Val  
245 250 255

Trp Ile Cys Arg Lys Arg Lys Arg Glu Gln Pro Asp Pro Ser Thr Lys

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Lys	Gln	His	Thr	Ile	Trp	Pro	Ser	Pro	His	Gln	Gly	Asn	Ser	Pro	Asp						
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Leu	Glu	Val	Tyr	Asn	Val	Ile	Arg	Lys	Gln	Ser	Glu	Ala	Asp	Leu	Ala						
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Glu	Thr	Arg	Pro	Asp	Leu	Lys	Asn	Ile	Ser	Phe	Arg	Val	Cys	Ser	Gly						
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			325						330					335							
Asn	Pro	Ser	Glu	Ser	Gly	Phe	Val	Thr	Leu	Val	Ser	Val	Glu	Ser	Gly						
			340					345					350								
Phe	Val	Thr	Asn	Asp	Ile	Tyr	Glu	Phe	Ser	Pro	Asp	Gln	Met	Gly	Arg						
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<210> 138

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 138

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50

<210> 139

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 139

aagccaaaga agcctgcagg aggg

24

<210> 140

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 140

cagtccaagc ataaaggtcc tggc

24

<210> 141  
<211> 1514  
<212> DNA  
<213> Homo sapiens

<400> 141  
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agtttatacc ttaagccag aaaaatacca tgcactctgc tctcaaaactc aggtgatgga 1440  
agttggaaat gaagagtaac tgatttataa aagcaggatg tgttgatttt aaaataaagt 1500  
gcctttatac aatg 1514

<210> 142  
<211> 428  
<212> PRT  
<213> Homo sapiens

<400> 142  
Met Ile Thr Gly Val Phe Ser Met Arg Leu Trp Thr Pro Val Gly Val  
1 5 10 15  
Leu Thr Ser Leu Ala Tyr Cys Leu His Gln Arg Arg Val Ala Leu Ala  
20 25 30  
Glu Leu Gln Glu Ala Asp Gly Gln Cys Pro Val Asp Arg Ser Leu Leu  
35 40 45  
Lys Leu Lys Met Val Gln Val Val Phe Arg His Gly Ala Arg Ser Pro  
50 55 60  
Leu Lys Pro Leu Pro Leu Glu Glu Gln Val Glu Trp Asn Pro Gln Leu  
65 70 75 80  
Leu Glu Val Pro Pro Gln Thr Gln Phe Asp Tyr Thr Val Thr Asn Leu

85

90

95

Ala	Gly	Gly	Pro	Lys	Pro	Tyr	Ser	Pro	Tyr	Asp	Ser	Gln	Tyr	His	Glu
			100					105					110		
Thr	Thr	Leu	Lys	Gly	Gly	Met	Phe	Ala	Gly	Gln	Leu	Thr	Lys	Val	Gly
		115					120					125			
Met	Gln	Gln	Met	Phe	Ala	Leu	Gly	Glu	Arg	Leu	Arg	Lys	Asn	Tyr	Val
	130					135					140				
Glu	Asp	Ile	Pro	Phe	Leu	Ser	Pro	Thr	Phe	Asn	Pro	Gln	Glu	Val	Phe
145					150					155					160
Ile	Arg	Ser	Thr	Asn	Ile	Phe	Arg	Asn	Leu	Glu	Ser	Thr	Arg	Cys	Leu
				165					170					175	
Leu	Ala	Gly	Leu	Phe	Gln	Cys	Gln	Lys	Glu	Gly	Pro	Ile	Ile	Ile	His
			180					185					190		
Thr	Asp	Glu	Ala	Asp	Ser	Glu	Val	Leu	Tyr	Pro	Asn	Tyr	Gln	Ser	Cys
	195						200					205			
Trp	Ser	Leu	Arg	Gln	Arg	Thr	Arg	Gly	Arg	Arg	Gln	Thr	Ala	Ser	Leu
	210					215					220				
Gln	Pro	Gly	Ile	Ser	Glu	Asp	Leu	Lys	Lys	Val	Lys	Asp	Arg	Met	Gly
225					230					235					240
Ile	Asp	Ser	Ser	Asp	Lys	Val	Asp	Phe	Phe	Ile	Leu	Leu	Asp	Asn	Val
				245					250					255	
Ala	Ala	Glu	Gln	Ala	His	Asn	Leu	Pro	Ser	Cys	Pro	Met	Leu	Lys	Arg
			260					265					270		
Phe	Ala	Arg	Met	Ile	Glu	Gln	Arg	Ala	Val	Asp	Thr	Ser	Leu	Tyr	Ile
	275						280					285			
Leu	Pro	Lys	Glu	Asp	Arg	Glu	Ser	Leu	Gln	Met	Ala	Val	Gly	Pro	Phe
	290					295					300				
Leu	His	Ile	Leu	Glu	Ser	Asn	Leu	Leu	Lys	Ala	Met	Asp	Ser	Ala	Thr
305					310					315					320
Ala	Pro	Asp	Lys	Ile	Arg	Lys	Leu	Tyr	Leu	Tyr	Ala	Ala	His	Asp	Val
				325					330					335	
Thr	Phe	Ile	Pro	Leu	Leu	Met	Thr	Leu	Gly	Ile	Phe	Asp	His	Lys	Trp
			340					345					350		
Pro	Pro	Phe	Ala	Val	Asp	Leu	Thr	Met	Glu	Leu	Tyr	Gln	His	Leu	Glu
		355					360					365			
Ser	Lys	Glu	Trp	Phe	Val	Gln	Leu	Tyr	Tyr	His	Gly	Lys	Glu	Gln	Val
	370					375					380				
Pro	Arg	Gly	Cys	Pro	Asp	Gly	Leu	Cys	Pro	Leu	Asp	Met	Phe	Leu	Asn

385	390	395	400
Ala Met Ser Val Tyr Thr Leu Ser Pro Glu Lys Tyr His Ala Leu Cys			
	405	410	415

Ser Gln Thr Gln Val Met Glu Val Gly Asn Glu Glu
420 425

<210> 143  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 143	
ccaactacca aagctgctgg agcc	24

<210> 144  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 144	
gcagctctat taccacggga agga	24

<210> 145  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 145	
tccttcccgt ggtaatagag ctgc	24

<210> 146  
 <211> 45  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 146	
ggcagagaac cagaggccgg aggagactgc ctctttacag ccagg	45

<210> 147

<211> 1686  
 <212> DNA  
 <213> Homo sapiens

<400> 147  
 ctctctttaa cataacttgca gctaaaaacta aatattgctg cttgggggacc tccttctagc 60  
 cttaaatttc agctcatcac cttcacctgc cttgggtcatg gctctgctat tctccttgat 120  
 ccttgccatt tgcaccagac ctggattcct agcgtctcca tctggagtgc ggctgggtggg 180  
 gggcctccac cgctgtgaag ggcgggtgga ggtggaacag aaaggccagt ggggcaccgt 240  
 gtgtgatgac ggctgggaca ttaaggacgt ggctgtgttg tgccgggagc tgggctgttg 300  
 agctgccagc ggaaccccta gtggtatatt gtatgagcca ccagcagaaa aagagcaaaa 360  
 ggtcctcatc caatcagtca gttgcacagg aacagaagat acattggctc agtgtgagca 420  
 agaagaagtt tatgattggt cacatgatga agatgctggg gcatcgtgtg agaaccacaga 480  
 gagctctttc tccccagtc cagagggtgt caggctggct gacggccctg ggcattgcaa 540  
 gggacgcgtg gaagtgaagc accagaacca gtgtgatacc gtgtgccaga caggctggag 600  
 cctccgggccc gcaaagggtg tgtgccggca gctgggatgt gggagggctg tactgactca 660  
 aaaacgctgc aacaagcatg cctatggccg aaaacccatc tggctgagcc agatgtcatg 720  
 ctccaggacga gaagcaaccc ttcaggattg cccttctggg ccttggggga agaacacctg 780  
 caacatgat gaagacacgt gggtcgaatg tgaagatccc tttgacttga gactagtagg 840  
 aggagacaac ctctgctctg ggcgactgga ggtgctgcac aagggcgtat ggggctctgt 900  
 ctgtgatgac aactggggag aaaaggagga ccagggtgta tgcaagcaac tgggctgttg 960  
 gaagtccttc tctccctcct tcagagaccg gaaatgctat ggcctgggg ttggccgcat 1020  
 ctggctggat aatgttcgtt gctcagggga ggagcagtcc ctggagcagt gccagcacag 1080  
 attttggggg tttcacgact gcacccacca ggaagatgtg gctgtcatct gctcagtgtg 1140  
 ggtgggcatc atctaactct ttgagtgcct gaatagaaga aaaacacaga agaaggggagc 1200  
 atttactgtc tacatgactg catgggatga acactgatct tcttctgccc ttggactggg 1260  
 acttatactt ggtgccccctg attctcaggc cttcagagtt ggatcagaac ttacaacatc 1320  
 aggtctagtt ctcaggccat cagacatagt ttggaactac atcaccacct ttcctatgtc 1380  
 tccacattgc acacagcaga tccccagcct ccataattgt gtgtatcaac tacttaaata 1440  
 cattctcaca cacacacaca cacacacaca cacacacaca ccacatata ccatttgtcc 1500  
 tgtttctctg aagaactctg acaaaatata gatttttgta ctgaaagaga ttctagagga 1560  
 acggaatttt aaggataaat tttctgaatt ggttatgggg tttctgaaat tggctctata 1620  
 atctaattag atataaaaatt ctggttaactt tattttacaat aataaagata gcactatgtg 1680  
 ttcaaa 1686

<210> 148  
 <211> 347  
 <212> PRT  
 <213> Homo sapiens

<400> 148  
 Met Ala Leu Leu Phe Ser Leu Ile Leu Ala Ile Cys Thr Arg Pro Gly  
 1 5 10 15  
 Phe Leu Ala Ser Pro Ser Gly Val Arg Leu Val Gly Gly Leu His Arg  
 20 25 30  
 Cys Glu Gly Arg Val Glu Val Glu Gln Lys Gly Gln Trp Gly Thr Val  
 35 40 45  
 Cys Asp Asp Gly Trp Asp Ile Lys Asp Val Ala Val Leu Cys Arg Glu  
 50 55 60  
 Leu Gly Cys Gly Ala Ala Ser Gly Thr Pro Ser Gly Ile Leu Tyr Glu  
 65 70 75 80  
 Pro Pro Ala Glu Lys Glu Gln Lys Val Leu Ile Gln Ser Val Ser Cys





oligonucleotide probe

<400> 149

ttcagctcat caccttcacc tgcc

24

<210> 150

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 150

ggctcataca aaataccact aggg

24

<210> 151

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 151

gggcctccac cgctgtgaag ggcgggtgga ggtggaacag aaaggccagt

50

<210> 152

<211> 1427

<212> DNA

<213> Homo sapiens

<400> 152

actgcactcg	gttctatcga	ttgaattccc	cggggatcct	ctagagatcc	ctcgacctcg	60
accacgcgt	ccgcggacgc	gtgggaggac	gcgtgggccc	gctaccagga	agagtctgcc	120
gaaggtgaag	gccatggact	tcatcacctc	cacagccatc	ctgcccctgc	tggtcggctg	180
cctgggctgc	ttcggcctct	tccggctgct	gcagtgggtg	cgcggaagg	cctacctgcg	240
gaatgctgtg	gtggtgatca	caggcgccac	ctcagggtg	ggcaaagaat	gtgcaaaagt	300
cttctatgct	gcgggtgcta	aactggtgct	ctgtggccgg	aatggtgggg	ccctagaaga	360
gctcatcaga	gaacttaccg	cttctcatgc	caccaagggtg	cagacacaca	agccttactt	420
ggtgaccttc	gacctcacag	actctggggc	catagtgtga	gcagcagctg	agatcctgca	480
gtgctttggc	tatgtcgaca	tacttgtcaa	caatgctggg	atcagctacc	gtggtaccat	540
catggacacc	acagtggatg	tggacaagag	ggtcatggag	acaaactact	ttggcccagt	600
tgctctaacg	aaagcactcc	tgccctccat	gatcaagagg	aggcaaggcc	acattgtcgc	660
catcagcagc	atccagggca	agatgagcat	tccttttcga	tcagcatatg	cagcctccaa	720
gcacgcaacc	caggctttct	ttgactgtct	gcgtgccgag	atggaacagt	atgaaattga	780
ggtgaccgtc	atcagccccg	gctacatcca	caccaacctc	tctgtaaagt	ccatcaccgc	840
ggatggatct	aggtatggag	ttatggacac	caccacagcc	cagggccgaa	gccctgtgga	900
ggtggcccag	gatgttcttg	ctgctgtggg	gaagaagaag	aaagatgtga	tcctggctga	960
cttactgcct	tccttggtctg	tttatcttcg	aactctggct	cctgggctct	tcttcagcct	1020
catggcctcc	agggccagaa	aagagcggaa	atccaagaac	tcctagtact	ctgaccagcc	1080
agggccaggg	cagagaagca	gcactcttag	gcttgcttac	tctacaaggg	acagttgcat	1140
ttgttgagac	tttaattggag	atttgtctca	caagtgggaa	agactgaaga	aacacatctc	1200
gtgcagatct	gctggcagag	gacaatcaaa	aacgacaaca	agcttcttcc	caggggtgagg	1260
ggaaacactt	aaggaataaa	tatggagctg	gggtttaaca	ctaaaaacta	gaaataaaca	1320

tctcaaacag taaaaaaaaa aaaaaaagggc ggccgcgact ctagagtcga cctgcagaag 1380  
 cttggccgcc atggcccaac ttgtttattg cagcttataa tgggttac 1427

<210> 153  
 <211> 310  
 <212> PRT  
 <213> Homo sapiens

<400> 153

Met	Asp	Phe	Ile	Thr	Ser	Thr	Ala	Ile	Leu	Pro	Leu	Leu	Phe	Gly	Cys
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Leu	Gly	Val	Phe	Gly	Leu	Phe	Arg	Leu	Leu	Gln	Trp	Val	Arg	Gly	Lys
		20						25					30		
Ala	Tyr	Leu	Arg	Asn	Ala	Val	Val	Val	Ile	Thr	Gly	Ala	Thr	Ser	Gly
		35					40						45		
Leu	Gly	Lys	Glu	Cys	Ala	Lys	Val	Phe	Tyr	Ala	Ala	Gly	Ala	Lys	Leu
	50					55					60				
Val	Leu	Cys	Gly	Arg	Asn	Gly	Gly	Ala	Leu	Glu	Glu	Leu	Ile	Arg	Glu
	65				70					75					80
Leu	Thr	Ala	Ser	His	Ala	Thr	Lys	Val	Gln	Thr	His	Lys	Pro	Tyr	Leu
				85					90					95	
Val	Thr	Phe	Asp	Leu	Thr	Asp	Ser	Gly	Ala	Ile	Val	Ala	Ala	Ala	Ala
			100					105						110	
Glu	Ile	Leu	Gln	Cys	Phe	Gly	Tyr	Val	Asp	Ile	Leu	Val	Asn	Asn	Ala
	115						120					125			
Gly	Ile	Ser	Tyr	Arg	Gly	Thr	Ile	Met	Asp	Thr	Thr	Val	Asp	Val	Asp
	130					135						140			
Lys	Arg	Val	Met	Glu	Thr	Asn	Tyr	Phe	Gly	Pro	Val	Ala	Leu	Thr	Lys
	145				150					155					160
Ala	Leu	Leu	Pro	Ser	Met	Ile	Lys	Arg	Arg	Gln	Gly	His	Ile	Val	Ala
				165					170					175	
Ile	Ser	Ser	Ile	Gln	Gly	Lys	Met	Ser	Ile	Pro	Phe	Arg	Ser	Ala	Tyr
			180					185					190		
Ala	Ala	Ser	Lys	His	Ala	Thr	Gln	Ala	Phe	Phe	Asp	Cys	Leu	Arg	Ala
		195					200					205			
Glu	Met	Glu	Gln	Tyr	Glu	Ile	Glu	Val	Thr	Val	Ile	Ser	Pro	Gly	Tyr
	210					215					220				
Ile	His	Thr	Asn	Leu	Ser	Val	Asn	Ala	Ile	Thr	Ala	Asp	Gly	Ser	Arg
	225				230					235					240
Tyr	Gly	Val	Met	Asp	Thr	Thr	Thr	Ala	Gln	Gly	Arg	Ser	Pro	Val	Glu
				245					250					255	

Val Ala Gln Asp Val Leu Ala Ala Val Gly Lys Lys Lys Lys Asp Val  
260 265 270

Ile Leu Ala Asp Leu Leu Pro Ser Leu Ala Val Tyr Leu Arg Thr Leu  
275 280 285

Ala Pro Gly Leu Phe Phe Ser Leu Met Ala Ser Arg Ala Arg Lys Glu  
290 295 300

Arg Lys Ser Lys Asn Ser  
305 310

<210> 154

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 154

ggtgctaaac tgggtgctctg tggc

24

<210> 155

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 155

cagggcaaga tgagcattcc

20

<210> 156

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 156

tcatactggt ccatctcggc acgc

24

<210> 157

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 157  
aatggtgggg ccctagaaga gctcatcaga gaactcaccg cttctcatgc 50

<210> 158  
<211> 1771  
<212> DNA  
<213> Homo sapiens

<400> 158  
cccacgcgtc cgctggtggt agatcgagca accctctaaa agcagtttag agtggtaaaa 60  
aaaaaaaaaa acacacccaaa cgctcgcagc cacaaaaggg atgaaatttc ttctggacat 120  
cctcctgctt ctcccgttac tgatcgtctg ctccctagag tccttcgtga agctttttat 180  
tcctaagagg agaaaatcag tcaccggcga aatcgtgctg attacaggag ctgggcatgg 240  
aattgggaga ctgactgcct atgaatttgc taaacttaaa agcaagctgg ttctctggga 300  
tataaataag catggactgg aggaaacagc tgccaaatgc aagggactgg gtgccaaggt 360  
tcataccttt gtggtagact gcagcaaccg agaagatatt tacagctctg caaagaaggt 420  
gaaggcagaa attggagatg ttagtatttt agtaaataat gctggtgtag tctatacatc 480  
agatttggtt gctacacaag atcctcagat tgaaaagact tttgaagtta atgtacttgc 540  
acatttctgg actacaaagg catttcttcc tgcaatgacg aagaataacc atggccatat 600  
tgtcactgtg gcttcggcag ctggacatgt ctcggtcccc ttcttactgg cttactgttc 660  
aagcaagttt gctgctggtg gatttcataa aactttgaca gatgaactgg ctgccttaca 720  
aataactgga gtcaaaacaa catgtctgtg tcctaatttc gtaaactctg gcttcatcaa 780  
aatccaagt acaagtttgg gaccactctt ggaacctgag gaagtggtaa acaggctgat 840  
gcatgggatt ctgactgagc agaagatgat ttttattcca tcttctatag cttttttaac 900  
aacattggaa aggatccttc ctgagcgttt cctggcagtt ttaaaacgaa aaatcagtg 960  
taagtttgat gcagttattg gatataaaat gaaagcgcaa taagcaccta gttttctgaa 1020  
aactgattta ccaggttttag gttgatgtca tctaatagtg ccagaatttt aatgtttgaa 1080  
cttctgtttt ttctaattat cccatttctt tcaatatcat ttttgaggct ttggcagtct 1140  
tcatttacta ccacttgttc ttttagccaaa agctgattac atatgatata aacagagaaa 1200  
tacctttaga ggtgacttta aggaaaatga agaaaaagaa ccaaaatgac tttattaaaa 1260  
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ttatttaaca tatattttta ttttgattg cacttaaatt ttgtataatt tgtgtttctt 1380  
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agagaatgta cccacaaatg gcagcaataa taaatggatc acacttaaaa aaaaaaaaaa 1680  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1740  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a a 1771

<210> 159  
<211> 300  
<212> PRT  
<213> Homo sapiens

<400> 159  
Met Lys Phe Leu Leu Asp Ile Leu Leu Leu Leu Pro Leu Leu Ile Val  
1 5 10 15  
Cys Ser Leu Glu Ser Phe Val Lys Leu Phe Ile Pro Lys Arg Arg Lys  
20 25 30  
Ser Val Thr Gly Glu Ile Val Leu Ile Thr Gly Ala Gly His Gly Ile  
35 40 45  
Gly Arg Leu Thr Ala Tyr Glu Phe Ala Lys Leu Lys Ser Lys Leu Val  
50 55 60

Leu Trp Asp Ile Asn Lys His Gly Leu Glu Glu Thr Ala Ala Lys Cys  
 65 70 75 80  
 Lys Gly Leu Gly Ala Lys Val His Thr Phe Val Val Asp Cys Ser Asn  
 85 90 95  
 Arg Glu Asp Ile Tyr Ser Ser Ala Lys Lys Val Lys Ala Glu Ile Gly  
 100 105 110  
 Asp Val Ser Ile Leu Val Asn Asn Ala Gly Val Val Tyr Thr Ser Asp  
 115 120 125  
 Leu Phe Ala Thr Gln Asp Pro Gln Ile Glu Lys Thr Phe Glu Val Asn  
 130 135 140  
 Val Leu Ala His Phe Trp Thr Thr Lys Ala Phe Leu Pro Ala Met Thr  
 145 150 155 160  
 Lys Asn Asn His Gly His Ile Val Thr Val Ala Ser Ala Ala Gly His  
 165 170 175  
 Val Ser Val Pro Phe Leu Leu Ala Tyr Cys Ser Ser Lys Phe Ala Ala  
 180 185 190  
 Val Gly Phe His Lys Thr Leu Thr Asp Glu Leu Ala Ala Leu Gln Ile  
 195 200 205  
 Thr Gly Val Lys Thr Thr Cys Leu Cys Pro Asn Phe Val Asn Thr Gly  
 210 215 220  
 Phe Ile Lys Asn Pro Ser Thr Ser Leu Gly Pro Thr Leu Glu Pro Glu  
 225 230 235 240  
 Glu Val Val Asn Arg Leu Met His Gly Ile Leu Thr Glu Gln Lys Met  
 245 250 255  
 Ile Phe Ile Pro Ser Ser Ile Ala Phe Leu Thr Thr Leu Glu Arg Ile  
 260 265 270  
 Leu Pro Glu Arg Phe Leu Ala Val Leu Lys Arg Lys Ile Ser Val Lys  
 275 280 285  
 Phe Asp Ala Val Ile Gly Tyr Lys Met Lys Ala Gln  
 290 295 300

<210> 160

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 160

ggtgaaggca gaaattggag atg

<210> 161  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 161  
atcccatgca tcagcctggt tacc 24

<210> 162  
<211> 48  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 162  
gctggtgtag tctatacatc agatttggtt gctacacaag atcctcag 48

<210> 163  
<211> 2076  
<212> DNA  
<213> Homo sapiens

<400> 163  
cccacgcgtc cgcggacgcg tgggtcgact agttctagat cgcgagcggc cgcccgcggc 60  
tcaggagga gcaccgactg cgccgcaccc tgagagatgg ttggtgccat gtggaagggtg 120  
attgtttcgc tggctcgtgt gatgcctggc ccctgtgatg ggctgtttcg ctccctatac 180  
agaagtgttt ccatgccacc taagggagac tcaggacagc cattatttct cacccttac 240  
attgaagctg ggaagatcca aaaaggaaga gaattgagtt tggtcggccc tttcccagga 300  
ctgaacatga agagttatgc cggcttcctc accgtgaata agacttaca cagcaacctc 360  
ttcttctggt tcttcccagc tcagatacag ccagaagatg cccagtagt tctctggcta 420  
cagggtgggc cgggaggttc atccatgttt ggactctttg tggaacatgg gccttatgtt 480  
gtcacaagta acatgacctt gcgtgacaga gacttcccct ggaccacaac gctctccatg 540  
ctttacattg acaatccagt gggcacaggc ttcagtttta ctgatgatac ccacggatat 600  
gcagtcaatg aggacgatgt agcacgggat ttatacagtg cactaattca gtttttccag 660  
atatttctctg aatataaaaa taatgacttt tatgtcactg gggagtctta tgcagggaaa 720  
tatgtgccag ccattgcaca cctcatccat tccctcaacc ctgtgagaga ggtgaagatc 780  
aacctgaacg gaattgctat tggagatgga tattctgatc ccgaatcaat tatagggggc 840  
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aagcagtgcc atgaatgcat agaacacatc aggaagcaga actggtttga ggcttttga 960  
atactggata aactactaga tggcgactta acaagtgatc cttcttactt ccagaatgtt 1020  
acaggatgta gtaattacta taactttttg cgggtgcacgg aacctgagga tcagctttac 1080  
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gtgtttgga atattattgg ataagaatag ctcaattatc ccaataaat ggatgaagct 1980  
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<210> 164  
<211> 476  
<212> PRT  
<213> Homo sapiens

<400> 164  
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Met Pro Pro Lys Gly Asp Ser Gly Gln Pro Leu Phe Leu Thr Pro Tyr  
35 40 45  
Ile Glu Ala Gly Lys Ile Gln Lys Gly Arg Glu Leu Ser Leu Val Gly  
50 55 60  
Pro Phe Pro Gly Leu Asn Met Lys Ser Tyr Ala Gly Phe Leu Thr Val  
65 70 75 80  
Asn Lys Thr Tyr Asn Ser Asn Leu Phe Phe Trp Phe Phe Pro Ala Gln  
85 90 95  
Ile Gln Pro Glu Asp Ala Pro Val Val Leu Trp Leu Gln Gly Gly Pro  
100 105 110  
Gly Gly Ser Ser Met Phe Gly Leu Phe Val Glu His Gly Pro Tyr Val  
115 120 125  
Val Thr Ser Asn Met Thr Leu Arg Asp Arg Asp Phe Pro Trp Thr Thr  
130 135 140  
Thr Leu Ser Met Leu Tyr Ile Asp Asn Pro Val Gly Thr Gly Phe Ser  
145 150 155 160  
Phe Thr Asp Asp Thr His Gly Tyr Ala Val Asn Glu Asp Asp Val Ala  
165 170 175  
Arg Asp Leu Tyr Ser Ala Leu Ile Gln Phe Phe Gln Ile Phe Pro Glu  
180 185 190  
Tyr Lys Asn Asn Asp Phe Tyr Val Thr Gly Glu Ser Tyr Ala Gly Lys  
195 200 205  
Tyr Val Pro Ala Ile Ala His Leu Ile His Ser Leu Asn Pro Val Arg  
210 215 220



Glu Val Lys Ile Asn Leu Asn Gly Ile Ala Ile Gly Asp Gly Tyr Ser																			
225					230					235									240
Asp Pro Glu Ser Ile Ile Gly Gly Tyr Ala Glu Phe Leu Tyr Gln Ile					245				250										255
Gly Leu Leu Asp Glu Lys Gln Lys Lys Tyr Phe Gln Lys Gln Cys His					260				265										270
Glu Cys Ile Glu His Ile Arg Lys Gln Asn Trp Phe Glu Ala Phe Glu					275				280										285
Ile Leu Asp Lys Leu Leu Asp Gly Asp Leu Thr Ser Asp Pro Ser Tyr					290				295										300
Phe Gln Asn Val Thr Gly Cys Ser Asn Tyr Tyr Asn Phe Leu Arg Cys					305				310										320
Thr Glu Pro Glu Asp Gln Leu Tyr Tyr Val Lys Phe Leu Ser Leu Pro					325				330										335
Glu Val Arg Gln Ala Ile His Val Gly Asn Gln Thr Phe Asn Asp Gly					340				345										350
Thr Ile Val Glu Lys Tyr Leu Arg Glu Asp Thr Val Gln Ser Val Lys					355				360										365
Pro Trp Leu Thr Glu Ile Met Asn Asn Tyr Lys Val Leu Ile Tyr Asn					370				375										380
Gly Gln Leu Asp Ile Ile Val Ala Ala Ala Leu Thr Glu Arg Ser Leu					385				390										400
Met Gly Met Asp Trp Lys Gly Ser Gln Glu Tyr Lys Lys Ala Glu Lys					405				410										415
Lys Val Trp Lys Ile Phe Lys Ser Asp Ser Glu Val Ala Gly Tyr Ile					420				425										430
Arg Gln Ala Gly Asp Phe His Gln Val Ile Ile Arg Gly Gly Gly His					435				440										445
Ile Leu Pro Tyr Asp Gln Pro Leu Arg Ala Phe Asp Met Ile Asn Arg					450				455										460
Phe Ile Tyr Gly Lys Gly Trp Asp Pro Tyr Val Gly					465				470										475

<210> 165

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 165  
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<210> 166  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 166  
tggatgaggt gtgcaatggc tggc 24

<210> 167  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 167  
agctctcaga ggctggatcat aggg 24

<210> 168  
<211> 50  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

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<210> 169  
<211> 2477  
<212> DNA  
<213> Homo sapiens

<400> 169  
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tcttgctgga gaagaaaggg ctgagggcag agcagggcac tctcactcag ggtgaccagc 180  
tccttgccctc tctgtggata acagagcatg agaaagtga gagatgcagc ggagtgaggt 240  
gatggaagtc taaaatagga aggaattttg tgtgcaatat cagactctgg gagcagttga 300  
cctggagagc ctgggggagg gcctgcctaa caagctttca aaaaacagga gcgacttcca 360  
ctgggctggg ataagacgtg ccggtaggat aggggaagact gggtttagtc ctaatatcaa 420  
attgactggc tgggtgaact tcaacagcct ttaacctct ctgggagatg aaaacgatgg 480  
cttaaggggc cagaaataga gatgctttgt aaaataaaat tttaaaaaaa gcaagtattt 540  
tatagcataa aggctagaga ccaaaataga taacaggatt ccctgaacat tcctaagagg 600  
gagaaagtat gttaaaaata gaaaaaccaa aatgcagaag gaggagactc acagagctaa 660

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accaggatgg ggaccctggg tcaggccagc ctctttgctc ctcccggaaa ttatTTTTTgg 720
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cagatgagca cacacaggag ccgtctctc accgccgcc ctctcagcat ggaacagagg 840
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tgggtgctgc tggccccccc agcagccggc atgcctcagt tcagcacctt ccactctgag 960
aatcgtgact ggaccttcaa ccacttgacc gtccaccaag ggacgggggc cgtctatgtg 1020
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ggcacggctg tggatgggaa gcaggattac ttcccgaccc tgtccagccg gaagctgccc 1440
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ctcatcaaga tcccttcaga caccctggcc ctggtctccc actttgacat cttctacatc 1560
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gccttcaata tcaccagcca ggacgatgta ctctttgcca tcttctccaa agggcagaag 1860
cagtatcacc accgccccga tgactctgcc ctgtgtgcct tccctatccg ggccatcaac 1920
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gtaaggaatg caagcgtatt tcaatatttc ccaaacttta agaaaaaact ttaagaagg 2460
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<210> 170

<211> 552

<212> PRT

<213> Homo sapiens

<400> 170

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Met Gly Thr Leu Gly Gln Ala Ser Leu Phe Ala Pro Pro Gly Asn Tyr
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Phe Trp Ser Asp His Ser Ala Leu Cys Phe Ala Glu Ser Cys Glu Gly
      20             25             30

```

```

Gln Pro Gly Lys Val Glu Gln Met Ser Thr His Arg Ser Arg Leu Leu
      35             40             45

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```

Thr Ala Ala Pro Leu Ser Met Glu Gln Arg Gln Pro Trp Pro Arg Ala
      50             55             60

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```

Leu Glu Val Asp Ser Arg Ser Val Val Leu Leu Ser Val Val Trp Val
      65             70             75             80

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```

Leu Leu Ala Pro Pro Ala Ala Gly Met Pro Gln Phe Ser Thr Phe His
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Ser Glu Asn Arg Asp Trp Thr Phe Asn His Leu Thr Val His Gln Gly

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100					105					110						
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115					120					125						
Gly	Asn	Leu	Thr	Ile	Gln	Val	Ala	His	Lys	Thr	Gly	Pro	Glu	Glu	Asp	
130					135					140						
Asn	Lys	Ser	Arg	Tyr	Pro	Pro	Leu	Ile	Val	Gln	Pro	Cys	Ser	Glu	Val	
145					150					155					160	
Leu	Thr	Leu	Thr	Asn	Asn	Val	Asn	Lys	Leu	Leu	Ile	Ile	Asp	Tyr	Ser	
165					170					175						
Glu	Asn	Arg	Leu	Leu	Ala	Cys	Gly	Ser	Leu	Tyr	Gln	Gly	Val	Cys	Lys	
180					185					190						
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195					200					205						
Lys	Glu	His	Tyr	Leu	Ser	Ser	Val	Asn	Lys	Thr	Gly	Thr	Met	Tyr	Gly	
210					215					220						
Val	Ile	Val	Arg	Ser	Glu	Gly	Glu	Asp	Gly	Lys	Leu	Phe	Ile	Gly	Thr	
225					230					235					240	
Ala	Val	Asp	Gly	Lys	Gln	Asp	Tyr	Phe	Pro	Thr	Leu	Ser	Ser	Arg	Lys	
245					250					255						
Leu	Pro	Arg	Asp	Pro	Glu	Ser	Ser	Ala	Met	Leu	Asp	Tyr	Glu	Leu	His	
260					265					270						
Ser	Asp	Phe	Val	Ser	Ser	Leu	Ile	Lys	Ile	Pro	Ser	Asp	Thr	Leu	Ala	
275					280					285						
Leu	Val	Ser	His	Phe	Asp	Ile	Phe	Tyr	Ile	Tyr	Gly	Phe	Ala	Ser	Gly	
290					295					300						
Gly	Phe	Val	Tyr	Phe	Leu	Thr	Val	Gln	Pro	Glu	Thr	Pro	Glu	Gly	Val	
305					310					315					320	
Ala	Ile	Asn	Ser	Ala	Gly	Asp	Leu	Phe	Tyr	Thr	Ser	Arg	Ile	Val	Arg	
325					330					335						
Leu	Cys	Lys	Asp	Asp	Pro	Lys	Phe	His	Ser	Tyr	Val	Ser	Leu	Pro	Phe	
340					345					350						
Gly	Cys	Thr	Arg	Ala	Gly	Val	Glu	Tyr	Arg	Leu	Leu	Gln	Ala	Ala	Tyr	
355					360					365						
Leu	Ala	Lys	Pro	Gly	Asp	Ser	Leu	Ala	Gln	Ala	Phe	Asn	Ile	Thr	Ser	
370					375					380						
Gln	Asp	Asp	Val	Leu	Phe	Ala	Ile	Phe	Ser	Lys	Gly	Gln	Lys	Gln	Tyr	
385					390					395					400	
His	His	Pro	Pro	Asp	Asp	Ser	Ala	Leu	Cys	Ala	Phe	Pro	Ile	Arg	Ala	



<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 173

ggactcactg gcccaggcct tcaatatcac cagccaggac gat

43

<210> 174

<211> 3106

<212> DNA

<213> Homo sapiens

<220>

<221> modified\_base

<222> (1683)..(1683)

<223> a, t, c or g

<400> 174

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tgtgtgtcgt	cttgggcttc	ctggtgctcc	gcaggctgga	ctggagcacc	ctggtccctc	180
tgcggtccg	ccatcgacag	ctggggctgc	aggccaagg	ctggaacttc	atgctggagg	240
attccacctt	ctggatcttc	gggggctcca	tccactattt	ccgtgtgccc	agggagtact	300
ggagggaccg	cctgctgaag	atgaaggcct	gtggcttgaa	caccctcacc	acctatgttc	360
cgtggaacct	gcatgagcca	gaaagaggca	aatttgactt	ctctgggaac	ctggacctgg	420
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acatctgcag	tgagatggac	ctcgggggct	tgcccagctg	gctactccaa	gaccctggca	540
tgaggctgag	gacaacttac	aagggttca	ccgaagcagt	ggacctttat	tttgaccacc	600
tgatgtccag	ggtggtgcc	ctccagtaca	agcgtggggg	acctatcatt	gccgtgcagg	660
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cactggagga	ccgtggcatt	gtggaactgc	tcttgacttc	agacaacaag	gatgggctga	780
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acggaggcac	caactttggc	ttcatgaatg	gagccatgca	cttccatgac	tacaagtcag	1080
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gaagtgtgtc caagtccgca tttgagcctt gttctggggc ccagcccaac acctggcctt 3060
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<210> 175  
 <211> 636  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (539)  
 <223> Any amino acid,

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                   20                  25                  30  
 Ser Thr Leu Val Pro Leu Arg Leu Arg His Arg Gln Leu Gly Leu Gln  
                   35                  40                  45  
 Ala Lys Gly Trp Asn Phe Met Leu Glu Asp Ser Thr Phe Trp Ile Phe  
                   50                  55                  60  
 Gly Gly Ser Ile His Tyr Phe Arg Val Pro Arg Glu Tyr Trp Arg Asp  
   65                  70                  75                  80  
 Arg Leu Leu Lys Met Lys Ala Cys Gly Leu Asn Thr Leu Thr Thr Tyr  
                   85                  90                  95  
 Val Pro Trp Asn Leu His Glu Pro Glu Arg Gly Lys Phe Asp Phe Ser  
                   100                  105                  110  
 Gly Asn Leu Asp Leu Glu Ala Phe Val Leu Met Ala Ala Glu Ile Gly  
                   115                  120                  125  
 Leu Trp Val Ile Leu Arg Pro Gly Pro Tyr Ile Cys Ser Glu Met Asp  
                   130                  135                  140  
 Leu Gly Gly Leu Pro Ser Trp Leu Leu Gln Asp Pro Gly Met Arg Leu  
   145                  150                  155                  160

Arg	Thr	Thr	Tyr	Lys	Gly	Phe	Thr	Glu	Ala	Val	Asp	Leu	Tyr	Phe	Asp	165	170	175
His	Leu	Met	Ser	Arg	Val	Val	Pro	Leu	Gln	Tyr	Lys	Arg	Gly	Gly	Pro	180	185	190
Ile	Ile	Ala	Val	Gln	Val	Glu	Asn	Glu	Tyr	Gly	Ser	Tyr	Asn	Lys	Asp	195	200	205
Pro	Ala	Tyr	Met	Pro	Tyr	Val	Lys	Lys	Ala	Leu	Glu	Asp	Arg	Gly	Ile	210	215	220
Val	Glu	Leu	Leu	Leu	Thr	Ser	Asp	Asn	Lys	Asp	Gly	Leu	Ser	Lys	Gly	225	230	235
Ile	Val	Gln	Gly	Val	Leu	Ala	Thr	Ile	Asn	Leu	Gln	Ser	Thr	His	Glu	245	250	255
Leu	Gln	Leu	Leu	Thr	Thr	Phe	Leu	Phe	Asn	Val	Gln	Gly	Thr	Gln	Pro	260	265	270
Lys	Met	Val	Met	Glu	Tyr	Trp	Thr	Gly	Trp	Phe	Asp	Ser	Trp	Gly	Gly	275	280	285
Pro	His	Asn	Ile	Leu	Asp	Ser	Ser	Glu	Val	Leu	Lys	Thr	Val	Ser	Ala	290	295	300
Ile	Val	Asp	Ala	Gly	Ser	Ser	Ile	Asn	Leu	Tyr	Met	Phe	His	Gly	Gly	305	310	315
Thr	Asn	Phe	Gly	Phe	Met	Asn	Gly	Ala	Met	His	Phe	His	Asp	Tyr	Lys	325	330	335
Ser	Asp	Val	Thr	Ser	Tyr	Asp	Tyr	Asp	Ala	Val	Leu	Thr	Glu	Ala	Gly	340	345	350
Asp	Tyr	Thr	Ala	Lys	Tyr	Met	Lys	Leu	Arg	Asp	Phe	Phe	Gly	Ser	Ile	355	360	365
Ser	Gly	Ile	Pro	Leu	Pro	Pro	Pro	Pro	Asp	Leu	Leu	Pro	Lys	Met	Pro	370	375	380
Tyr	Glu	Pro	Leu	Thr	Pro	Val	Leu	Tyr	Leu	Ser	Leu	Trp	Asp	Ala	Leu	385	390	395
Lys	Tyr	Leu	Gly	Glu	Pro	Ile	Lys	Ser	Glu	Lys	Pro	Ile	Asn	Met	Glu	405	410	415
Asn	Leu	Pro	Val	Asn	Gly	Gly	Asn	Gly	Gln	Ser	Phe	Gly	Tyr	Ile	Leu	420	425	430
Tyr	Glu	Thr	Ser	Ile	Thr	Ser	Ser	Gly	Ile	Leu	Ser	Gly	His	Val	His	435	440	445
Asp	Arg	Gly	Gln	Val	Phe	Val	Asn	Thr	Val	Ser	Ile	Gly	Phe	Leu	Asp	450	455	460



Tyr Lys Thr Thr Lys Ile Ala Val Pro Leu Ile Gln Gly Tyr Thr Val  
465 470 475 480

Leu Arg Ile Leu Val Glu Asn Arg Gly Arg Val Asn Tyr Gly Glu Asn  
485 490 495

Ile Asp Asp Gln Arg Lys Gly Leu Ile Gly Asn Leu Tyr Leu Asn Asp  
500 505 510

Ser Pro Leu Lys Asn Phe Arg Ile Tyr Ser Leu Asp Met Lys Lys Ser  
515 520 525

Phe Phe Gln Arg Phe Gly Leu Asp Lys Trp Xaa Ser Leu Pro Glu Thr  
530 535 540

Pro Thr Leu Pro Ala Phe Phe Leu Gly Ser Leu Ser Ile Ser Ser Thr  
545 550 555 560

Pro Cys Asp Thr Phe Leu Lys Leu Glu Gly Trp Glu Lys Gly Val Val  
565 570 575

Phe Ile Asn Gly Gln Asn Leu Gly Arg Tyr Trp Asn Ile Gly Pro Gln  
580 585 590

Lys Thr Leu Tyr Leu Pro Gly Pro Trp Leu Ser Ser Gly Ile Asn Gln  
595 600 605

Val Ile Val Phe Glu Glu Thr Met Ala Gly Pro Ala Leu Gln Phe Thr  
610 615 620

Glu Thr Pro His Leu Gly Arg Asn Gln Tyr Ile Lys  
625 630 635

<210> 176  
<211> 2505  
<212> DNA  
<213> Homo sapiens

<400> 176  
ggggacgcgg agctgagagg ctccgggcta gctaggtgta ggggtggacg ggtcccagga 60  
ccctggtgag ggttctctac ttggccttcg gtgggggtca agacgcaggc acctacgcca 120  
aaggggagca aagccgggct cggcccaggg ccccaggac ctccatctcc caatgttgga 180  
ggaatccgac acgtgacggg ctgtccgccc tctcagacta gaggagcgct gtaaacgcca 240  
tggctcccaa gaagctgtcc tgccttcggt ccctgctgct gccgctcagc ctgacgctac 300  
tgctgcccc aagcagacact cggtcgttcg tagtgatag gggatcatgac cggtttctcc 360  
tagacggggc ccggttccgc tatgtgtctg gcagcctgca ctactttcgg gtaccgcggg 420  
tgctttgggc cgaccggctt ttgaagatgc gatggagcgg cctcaacgcc atacagtttt 480  
atgtgccctg gaactaccac gagccacagc ctgggggtcta taactttaat ggcagccggg 540  
acctcattgc ctttctgaat gaggcagctc tagcgaacct gttggtcata ctgagaccag 600  
gaccttacat ctgtgcagag tgggagatgg ggggtctccc atcctggttg cttcgaatac 660  
ctgaaattca tctaagaacc tcagatccag acttccttgc cgcagtggac tcctggttca 720  
aggtcttgct gcccaagata tatccatggc tttatcacia tgggggcaac atcattagca 780  
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<210> 177  
 <211> 654  
 <212> PRT  
 <213> Homo sapiens

```

<400> 177
Met Ala Pro Lys Lys Leu Ser Cys Leu Arg Ser Leu Leu Leu Pro Leu
  1              5              10              15

Ser Leu Thr Leu Leu Leu Pro Gln Ala Asp Thr Arg Ser Phe Val Val
      20              25              30

Asp Arg Gly His Asp Arg Phe Leu Leu Asp Gly Ala Pro Phe Arg Tyr
      35              40              45

Val Ser Gly Ser Leu His Tyr Phe Arg Val Pro Arg Val Leu Trp Ala
      50              55              60

Asp Arg Leu Leu Lys Met Arg Trp Ser Gly Leu Asn Ala Ile Gln Phe
      65              70              75              80

Tyr Val Pro Trp Asn Tyr His Glu Pro Gln Pro Gly Val Tyr Asn Phe
      85              90              95

Asn Gly Ser Arg Asp Leu Ile Ala Phe Leu Asn Glu Ala Ala Leu Ala
      100              105              110

Asn Leu Leu Val Ile Leu Arg Pro Gly Pro Tyr Ile Cys Ala Glu Trp
      115              120              125

Glu Met Gly Gly Leu Pro Ser Trp Leu Leu Arg Lys Pro Glu Ile His
      130              135              140

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Leu Arg Thr Ser Asp Pro Asp Phe Leu Ala Ala Val Asp Ser Trp Phe  
 145 150 155 160  
 Lys Val Leu Leu Pro Lys Ile Tyr Pro Trp Leu Tyr His Asn Gly Gly  
 165 170 175  
 Asn Ile Ile Ser Ile Gln Val Glu Asn Glu Tyr Gly Ser Tyr Arg Ala  
 180 185 190  
 Cys Asp Phe Ser Tyr Met Arg His Leu Ala Gly Leu Phe Arg Ala Leu  
 195 200 205  
 Leu Gly Glu Lys Ile Leu Leu Phe Thr Thr Asp Gly Pro Glu Gly Leu  
 210 215 220  
 Lys Cys Gly Ser Leu Arg Gly Leu Tyr Thr Thr Val Asp Phe Gly Pro  
 225 230 235 240  
 Ala Asp Asn Met Thr Lys Ile Phe Thr Leu Leu Arg Lys Tyr Glu Pro  
 245 250 255  
 His Gly Pro Leu Val Asn Ser Glu Tyr Tyr Thr Gly Trp Leu Asp Tyr  
 260 265 270  
 Trp Gly Gln Asn His Ser Thr Arg Ser Val Ser Ala Val Thr Lys Gly  
 275 280 285  
 Leu Glu Asn Met Leu Lys Leu Gly Ala Ser Val Asn Met Tyr Met Phe  
 290 295 300  
 His Gly Gly Thr Asn Phe Gly Tyr Trp Asn Gly Ala Asp Lys Lys Gly  
 305 310 315 320  
 Arg Phe Leu Pro Ile Thr Thr Ser Tyr Asp Tyr Asp Ala Pro Ile Ser  
 325 330 335  
 Glu Ala Gly Asp Pro Thr Pro Lys Leu Phe Ala Leu Arg Asp Val Ile  
 340 345 350  
 Ser Lys Phe Gln Glu Val Pro Leu Gly Pro Leu Pro Pro Pro Ser Pro  
 355 360 365  
 Lys Met Met Leu Gly Pro Val Thr Leu His Leu Val Gly His Leu Leu  
 370 375 380  
 Ala Phe Leu Asp Leu Leu Cys Pro Arg Gly Pro Ile His Ser Ile Leu  
 385 390 395 400  
 Pro Met Thr Phe Glu Ala Val Lys Gln Asp His Gly Phe Met Leu Tyr  
 405 410 415  
 Arg Thr Tyr Met Thr His Thr Ile Phe Glu Pro Thr Pro Phe Trp Val  
 420 425 430  
 Pro Asn Asn Gly Val His Asp Arg Ala Tyr Val Met Val Asp Gly Val  
 435 440 445

Phe Gln Gly Val Val Glu Arg Asn Met Arg Asp Lys Leu Phe Leu Thr  
 450 455 460  
 Gly Lys Leu Gly Ser Lys Leu Asp Ile Leu Val Glu Asn Met Gly Arg  
 465 470 475 480  
 Leu Ser Phe Gly Ser Asn Ser Ser Asp Phe Lys Gly Leu Leu Lys Pro  
 485 490 495  
 Pro Ile Leu Gly Gln Thr Ile Leu Thr Gln Trp Met Met Phe Pro Leu  
 500 505 510  
 Lys Ile Asp Asn Leu Val Lys Trp Trp Phe Pro Leu Gln Leu Pro Lys  
 515 520 525  
 Trp Pro Tyr Pro Gln Ala Pro Ser Gly Pro Thr Phe Tyr Ser Lys Thr  
 530 535 540  
 Phe Pro Ile Leu Gly Ser Val Gly Asp Thr Phe Leu Tyr Leu Pro Gly  
 545 550 555 560  
 Trp Thr Lys Gly Gln Val Trp Ile Asn Gly Phe Asn Leu Gly Arg Tyr  
 565 570 575  
 Trp Thr Lys Gln Gly Pro Gln Gln Thr Leu Tyr Val Pro Arg Phe Leu  
 580 585 590  
 Leu Phe Pro Arg Gly Ala Leu Asn Lys Ile Thr Leu Leu Glu Leu Glu  
 595 600 605  
 Asp Val Pro Leu Gln Pro Gln Val Gln Phe Leu Asp Lys Pro Ile Leu  
 610 615 620  
 Asn Ser Thr Ser Thr Leu His Arg Thr His Ile Asn Ser Leu Ser Ala  
 625 630 635 640  
 Asp Thr Leu Ser Ala Ser Glu Pro Met Glu Leu Ser Gly His  
 645 650

<210> 178

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 178

tggctactcc aagaccctgg catg

24

<210> 179

<211> 24

<212> DNA

<213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 179  
 tggacaaatc cccttgctca gccc 24

<210> 180  
 <211> 50  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 180  
 gggcttcacc gaagcagtgg acctttattt tgaccacctg atgtccaggg 50

<210> 181  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 181  
 ccagctatga ctatgatgca cc 22

<210> 182  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 182  
 tggcaccag aatggtggtg gctc 24

<210> 183  
 <211> 50  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 183  
 cgagatgtca tcagcaagtt ccaggaagtt cctttgggac ctttacctcc 50

<210> 184  
 <211> 1947

<212> DNA  
<213> Homo sapiens

<400> 184

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gctttgaaca cgtctgcaag cccaaagttg agcatctgat tggttatgag gtatttgagt 60
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gtgtttatgg ctttatctgc ctctacactc tcttctgggt attcaggata cctttgaagg 180
aatattcttt cgaaaaagtc agagaagaga gcagttttag tgacattcca gatgtcaaaa 240
acgattttgc gttccttctt cacatggtag accagtatga ccagctatat tccaagcggt 300
ttggtgtggt cttgtcagaa gttagtgaat ataaacttag ggaaattagt ttgaaccatg 360
agtggacatt tgaaaaactc aggcagcaca ttacacgcaa cgcccaggac aagcaggagt 420
tgcattctgt catgctgtcg ggggtgcccg atgctgtctt tgacctcaca gacctggatg 480
tgctaaagct tgaactaatt ccagaagcta aaattcctgc taagatttct caaatgacta 540
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ttcttcgcga tcacttgaga tgccttcacg tgaagttcac tgatgtggct gaaattcctg 660
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gctgccgcta ctgaatgttt acaaattgct tgctgcttaa agtaaatgat taaattgaca 1920
ttttcttact aaaaaaaaaa aaaaaaa 1947
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<210> 185  
<211> 501  
<212> PRT  
<213> Homo sapiens

<400> 185

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Met Ala Tyr Met Leu Lys Lys Leu Leu Ile Ser Tyr Ile Ser Ile Ile
  1             5             10             15

Cys Val Tyr Gly Phe Ile Cys Leu Tyr Thr Leu Phe Trp Leu Phe Arg
      20             25             30

Ile Pro Leu Lys Glu Tyr Ser Phe Glu Lys Val Arg Glu Glu Ser Ser
      35             40             45

Phe Ser Asp Ile Pro Asp Val Lys Asn Asp Phe Ala Phe Leu Leu His
      50             55             60

Met Val Asp Gln Tyr Asp Gln Leu Tyr Ser Lys Arg Phe Gly Val Phe
```

65		70		75		80
Leu Ser Glu Val	Ser Glu Asn Lys Leu Arg Glu Ile Ser Leu Asn His	85	90	95		
Glu Trp Thr Phe	Glu Lys Leu Arg Gln His Ile Ser Arg Asn Ala Gln	100	105	110		
Asp Lys Gln Glu	Leu His Leu Phe Met Leu Ser Gly Val Pro Asp Ala	115	120	125		
Val Phe Asp Leu	Thr Asp Leu Asp Val Leu Lys Leu Glu Leu Ile Pro	130	135	140		
Glu Ala Lys Ile	Pro Ala Lys Ile Ser Gln Met Thr Asn Leu Gln Glu	145	150	155		160
Leu His Leu Cys	His Cys Pro Ala Lys Val Glu Gln Thr Ala Phe Ser	165	170	175		
Phe Leu Arg Asp	His Leu Arg Cys Leu His Val Lys Phe Thr Asp Val	180	185	190		
Ala Glu Ile Pro	Ala Trp Val Tyr Leu Leu Lys Asn Leu Arg Glu Leu	195	200	205		
Tyr Leu Ile Gly	Asn Leu Asn Ser Glu Asn Asn Lys Met Ile Gly Leu	210	215	220		
Glu Ser Leu Arg	Glu Leu Arg His Leu Lys Ile Leu His Val Lys Ser	225	230	235		240
Asn Leu Thr Lys	Val Pro Ser Asn Ile Thr Asp Val Ala Pro His Leu	245	250	255		
Thr Lys Leu Val	Ile His Asn Asp Gly Thr Lys Leu Leu Val Leu Asn	260	265	270		
Ser Leu Lys Lys	Met Met Asn Val Ala Glu Leu Glu Leu Gln Asn Cys	275	280	285		
Glu Leu Glu Arg	Ile Pro His Ala Ile Phe Ser Leu Ser Asn Leu Gln	290	295	300		
Glu Leu Asp Leu	Lys Ser Asn Asn Ile Arg Thr Ile Glu Glu Ile Ile	305	310	315		320
Ser Phe Gln His	Leu Lys Arg Leu Thr Cys Leu Lys Leu Trp His Asn	325	330	335		
Lys Ile Val Thr	Ile Pro Pro Ser Ile Thr His Val Lys Asn Leu Glu	340	345	350		
Ser Leu Tyr Phe	Ser Asn Asn Lys Leu Glu Ser Leu Pro Val Ala Val	355	360	365		
Phe Ser Leu Gln	Lys Leu Arg Cys Leu Asp Val Ser Tyr Asn Asn Ile					

370	375	380
Ser Met Ile Pro Ile Glu Ile Gly Leu Leu Gln Asn Leu Gln His Leu		
385	390	395 400
His Ile Thr Gly Asn Lys Val Asp Ile Leu Pro Lys Gln Leu Phe Lys		
	405	410 415
Cys Ile Lys Leu Arg Thr Leu Asn Leu Gly Gln Asn Cys Ile Thr Ser		
	420	425 430
Leu Pro Glu Lys Val Gly Gln Leu Ser Gln Leu Thr Gln Leu Glu Leu		
	435	440 445
Lys Gly Asn Cys Leu Asp Arg Leu Pro Ala Gln Leu Gly Gln Cys Arg		
450	455	460
Met Leu Lys Lys Ser Gly Leu Val Val Glu Asp His Leu Phe Asp Thr		
465	470	475 480
Leu Pro Leu Glu Val Lys Glu Ala Leu Asn Gln Asp Ile Asn Ile Pro		
	485	490 495
Phe Ala Asn Gly Ile		
	500	

<210> 186  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 186  
 cctccctcta ttacccatgt c 21

<210> 187  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 187  
 gaccaacttt ctctgggagt gagg 24

<210> 188  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic



oligonucleotide probe

<400> 188

gtcacttttat ttctctaaca acaagctcga atccttacca gtggcag

47

<210> 189

<211> 2917

<212> DNA

<213> Homo sapiens

<400> 189

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aagacatttg tgttttacac acataaggat ctgtgtttgg ggtttcttct tcctcccctg 180
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 ggctgaaag tgacacacag gcctgcatgt aaaaaaa 2917

<210> 190  
 <211> 607  
 <212> PRT  
 <213> Homo sapiens

<400> 190

Met Glu Leu Val Arg Arg Leu Met Pro Leu Thr Leu Leu Ile Leu Ser  
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Cys Leu Ala Glu Leu Thr Met Ala Glu Ala Glu Gly Asn Ala Ser Cys  
 20 25 30

Thr Val Ser Leu Gly Gly Ala Asn Met Ala Glu Thr His Lys Ala Met  
 35 40 45

Ile Leu Gln Leu Asn Pro Ser Glu Asn Cys Thr Trp Thr Ile Glu Arg  
 50 55 60

Pro Glu Asn Lys Ser Ile Arg Ile Ile Phe Ser Tyr Val Gln Leu Asp  
 65 70 75 80

Pro Asp Gly Ser Cys Glu Ser Glu Asn Ile Lys Val Phe Asp Gly Thr  
 85 90 95

Ser Ser Asn Gly Pro Leu Leu Gly Gln Val Cys Ser Lys Asn Asp Tyr  
 100 105 110

Val Pro Val Phe Glu Ser Ser Ser Thr Leu Thr Phe Gln Ile Val  
 115 120 125

Thr Asp Ser Ala Arg Ile Gln Arg Thr Val Phe Val Phe Tyr Tyr Phe  
 130 135 140

Phe Ser Pro Asn Ile Ser Ile Pro Asn Cys Gly Gly Tyr Leu Asp Thr  
 145 150 155 160

Leu Glu Gly Ser Phe Thr Ser Pro Asn Tyr Pro Lys Pro His Pro Glu  
 165 170 175

Leu Ala Tyr Cys Val Trp His Ile Gln Val Glu Lys Asp Tyr Lys Ile  
 180 185 190

Lys Leu Asn Phe Lys Glu Ile Phe Leu Glu Ile Asp Lys Gln Cys Lys  
 195 200 205

Phe Asp Phe Leu Ala Ile Tyr Asp Gly Pro Ser Thr Asn Ser Gly Leu  
 210 215 220

Ile Gly Gln Val Cys Gly Arg Val Thr Pro Thr Phe Glu Ser Ser Ser  
 225 230 235 240

Asn Ser Leu Thr Val Val Leu Ser Thr Asp Tyr Ala Asn Ser Tyr Arg  
 245 250 255

Gly	Phe	Ser	Ala	Ser	Tyr	Thr	Ser	Ile	Tyr	Ala	Glu	Asn	Ile	Asn	Thr	260	265	270
Thr	Ser	Leu	Thr	Cys	Ser	Ser	Asp	Arg	Met	Arg	Val	Ile	Ile	Ser	Lys	275	280	285
Ser	Tyr	Leu	Glu	Ala	Phe	Asn	Ser	Asn	Gly	Asn	Asn	Leu	Gln	Leu	Lys	290	295	300
Asp	Pro	Thr	Cys	Arg	Pro	Lys	Leu	Ser	Asn	Val	Val	Glu	Phe	Ser	Val	305	310	315
Pro	Leu	Asn	Gly	Cys	Gly	Thr	Ile	Arg	Lys	Val	Glu	Asp	Gln	Ser	Ile	325	330	335
Thr	Tyr	Thr	Asn	Ile	Ile	Thr	Phe	Ser	Ala	Ser	Ser	Thr	Ser	Glu	Val	340	345	350
Ile	Thr	Arg	Gln	Lys	Gln	Leu	Gln	Ile	Ile	Val	Lys	Cys	Glu	Met	Gly	355	360	365
His	Asn	Ser	Thr	Val	Glu	Ile	Ile	Tyr	Ile	Thr	Glu	Asp	Asp	Val	Ile	370	375	380
Gln	Ser	Gln	Asn	Ala	Leu	Gly	Lys	Tyr	Asn	Thr	Ser	Met	Ala	Leu	Phe	385	390	395
Glu	Ser	Asn	Ser	Phe	Glu	Lys	Thr	Ile	Leu	Glu	Ser	Pro	Tyr	Tyr	Val	405	410	415
Asp	Leu	Asn	Gln	Thr	Leu	Phe	Val	Gln	Val	Ser	Leu	His	Thr	Ser	Asp	420	425	430
Pro	Asn	Leu	Val	Val	Phe	Leu	Asp	Thr	Cys	Arg	Ala	Ser	Pro	Thr	Ser	435	440	445
Asp	Phe	Ala	Ser	Pro	Thr	Tyr	Asp	Leu	Ile	Lys	Ser	Gly	Cys	Ser	Arg	450	455	460
Asp	Glu	Thr	Cys	Lys	Val	Tyr	Pro	Leu	Phe	Gly	His	Tyr	Gly	Arg	Phe	465	470	475
Gln	Phe	Asn	Ala	Phe	Lys	Phe	Leu	Arg	Ser	Met	Ser	Ser	Val	Tyr	Leu	485	490	495
Gln	Cys	Lys	Val	Leu	Ile	Cys	Asp	Ser	Ser	Asp	His	Gln	Ser	Arg	Cys	500	505	510
Asn	Gln	Gly	Cys	Val	Ser	Arg	Ser	Lys	Arg	Asp	Ile	Ser	Ser	Tyr	Lys	515	520	525
Trp	Lys	Thr	Asp	Ser	Ile	Ile	Gly	Pro	Ile	Arg	Leu	Lys	Arg	Asp	Arg	530	535	540
Ser	Ala	Ser	Gly	Asn	Ser	Gly	Phe	Gln	His	Glu	Thr	His	Ala	Glu	Glu	545	550	555

Thr Pro Asn Gln Pro Phe Asn Ser Val His Leu Phe Ser Phe Met Val  
565 570 575

Leu Ala Leu Asn Val Val Thr Val Ala Thr Ile Thr Val Arg His Phe  
580 585 590

Val Asn Gln Arg Ala Asp Tyr Lys Tyr Gln Lys Leu Gln Asn Tyr  
595 600 605

<210> 191  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 191  
tctctattcc aaactgtggc g 21

<210> 192  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 192  
tttgatgacg attcgaaggt gg 22

<210> 193  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 193  
ggaaggatcc ttcaccagcc ccaattaccc aaagccgcat cctgagc 47

<210> 194  
<211> 2362  
<212> DNA  
<213> Homo sapiens

<400> 194  
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ctgctgctgc cgccgcgcgc gtgccctgcc cacagcgcca cgcgcttcga cccacctgg 180  
gagtcacctg acgcccgcga gctgcccgcg tggtttgacc aggccaaagt cggcattctc 240  
atccactggg gagtgttttc cgtgcccagc ttcggtagcg agtggttctg gtggtattgg 300

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caaaaggaaa agataccgaa gtatgtggaa tttatgaaag ataattaccc tcctagtttc 360
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<210> 195

<211> 467

<212> PRT

<213> Homo sapiens

<400> 195

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Leu Leu Leu Leu Leu Pro Pro Pro Pro Cys Pro Ala His Ser Ala Thr
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Arg Phe Asp Pro Thr Trp Glu Ser Leu Asp Ala Arg Gln Leu Pro Ala
  35              40              45

Trp Phe Asp Gln Ala Lys Phe Gly Ile Phe Ile His Trp Gly Val Phe
  50              55              60

Ser Val Pro Ser Phe Gly Ser Glu Trp Phe Trp Trp Tyr Trp Gln Lys
  65              70              75              80

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Glu Lys Ile Pro Lys Tyr Val Glu Phe Met Lys Asp Asn Tyr Pro Pro  
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 Ser Phe Lys Tyr Glu Asp Phe Gly Pro Leu Phe Thr Ala Lys Phe Phe  
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 Asn Ala Asn Gln Trp Ala Asp Ile Phe Gln Ala Ser Gly Ala Lys Tyr  
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 Ile Val Leu Thr Ser Lys His His Glu Gly Phe Thr Leu Trp Gly Ser  
 130 135 140  
 Glu Tyr Ser Trp Asn Trp Asn Ala Ile Asp Glu Gly Pro Lys Arg Asp  
 145 150 155 160  
 Ile Val Lys Glu Leu Glu Val Ala Ile Arg Asn Arg Thr Asp Leu Arg  
 165 170 175  
 Phe Gly Leu Tyr Tyr Ser Leu Phe Glu Trp Phe His Pro Leu Phe Leu  
 180 185 190  
 Glu Asp Glu Ser Ser Ser Phe His Lys Arg Gln Phe Pro Val Ser Lys  
 195 200 205  
 Thr Leu Pro Glu Leu Tyr Glu Leu Val Asn Asn Tyr Gln Pro Glu Val  
 210 215 220  
 Leu Trp Ser Asp Gly Asp Gly Gly Ala Pro Asp Gln Tyr Trp Asn Ser  
 225 230 235 240  
 Thr Gly Phe Leu Ala Trp Leu Tyr Asn Glu Ser Pro Val Arg Gly Thr  
 245 250 255  
 Val Val Thr Asn Asp Arg Trp Gly Ala Gly Ser Ile Cys Lys His Gly  
 260 265 270  
 Gly Phe Tyr Thr Cys Ser Asp Arg Tyr Asn Pro Gly His Leu Leu Pro  
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 His Lys Trp Glu Asn Cys Met Thr Ile Asp Lys Leu Ser Trp Gly Tyr  
 290 295 300  
 Arg Arg Glu Ala Gly Ile Ser Asp Tyr Leu Thr Ile Glu Glu Leu Val  
 305 310 315 320  
 Lys Gln Leu Val Glu Thr Val Ser Cys Gly Gly Asn Leu Leu Met Asn  
 325 330 335  
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 340 345 350  
 Leu Arg Gln Val Gly Ser Trp Leu Lys Val Asn Gly Glu Ala Ile Tyr  
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 Glu Thr Tyr Thr Trp Arg Ser Gln Asn Asp Thr Val Thr Pro Asp Val  
 370 375 380

Trp Tyr Thr Ser Lys Pro Lys Glu Lys Leu Val Tyr Ala Ile Phe Leu  
 385 390 395 400

Lys Trp Pro Thr Ser Gly Gln Leu Phe Leu Gly His Pro Lys Ala Ile  
 405 410 415

Leu Gly Ala Thr Glu Val Lys Leu Leu Gly His Gly Gln Pro Leu Asn  
 420 425 430

Trp Ile Ser Leu Glu Gln Asn Gly Ile Met Val Glu Leu Pro Gln Leu  
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Thr Ile His Gln Met Pro Cys Lys Trp Gly Trp Ala Leu Ala Leu Thr  
 450 455 460

Asn Val Ile  
 465

<210> 196  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 196  
 tggtttgacc aggccaagtt cgg 23

<210> 197  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 197  
 ggattcatcc tcaaggaaga gcgg 24

<210> 198  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 198  
 aacttcagc atcagccact ctgc 24

<210> 199  
 <211> 45  
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 199

ttccgtgccc agcttcggta gcgagtgggt ctggtggtat tggca 45

<210> 200

<211> 2372

<212> DNA

<213> Homo sapiens

<400> 200

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tgtgacaaaa aattaaagca tttagaaaaac tt 2372
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<210> 201



<211> 322  
<212> PRT  
<213> Artificial sequence

<220>  
<223> Synthetic protein

<400> 201

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Thr	Arg	Leu	Leu	Val	Gln	Gly	Ser	Leu	Arg	Ala	Glu	Glu	Leu	Ser	Ile	
		20						25					30			
Gln	Val	Ser	Cys	Arg	Ile	Met	Gly	Ile	Thr	Leu	Val	Ser	Lys	Lys	Ala	
		35					40					45				
Asn	Gln	Gln	Leu	Asn	Phe	Thr	Glu	Ala	Lys	Glu	Ala	Cys	Arg	Leu	Leu	
	50					55					60					
Gly	Leu	Ser	Leu	Ala	Gly	Lys	Asp	Gln	Val	Glu	Thr	Ala	Leu	Lys	Ala	
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Ser	Phe	Glu	Thr	Cys	Ser	Tyr	Gly	Trp	Val	Gly	Asp	Gly	Phe	Val	Val	
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Ile	Ser	Arg	Ile	Ser	Pro	Asn	Pro	Lys	Cys	Gly	Lys	Asn	Gly	Val	Gly	
		100						105					110			
Val	Leu	Ile	Trp	Lys	Val	Pro	Val	Ser	Arg	Gln	Phe	Ala	Ala	Tyr	Cys	
	115						120					125				
Tyr	Asn	Ser	Ser	Asp	Thr	Trp	Thr	Asn	Ser	Cys	Ile	Pro	Glu	Ile	Ile	
	130					135					140					
Thr	Thr	Lys	Asp	Pro	Ile	Phe	Asn	Thr	Gln	Thr	Ala	Thr	Gln	Thr	Thr	
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Ile	Pro	Arg	Arg	Lys	Lys	Leu	Ile	Cys	Val	Thr	Glu	Val	Phe	Met	Glu	
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	210					215					220					
Ala	Phe	Lys	Asn	Glu	Ala	Ala	Gly	Phe	Gly	Gly	Val	Pro	Thr	Ala	Leu	
225					230					235					240	
Leu	Val	Leu	Ala	Leu	Leu	Phe	Phe	Gly	Ala	Ala	Ala	Gly	Leu	Gly	Phe	
			245					250						255		
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Glu Glu Ser Lys Ser Pro Ser Lys Thr Thr Val Arg Cys Leu Glu Ala		
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Glu Val		

<210> 202  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 202  
 gagctttcca tccaggtgtc atgc 24

<210> 203  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 203  
 gtcagtgaca gtacctactc gg 22

<210> 204  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 204  
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<210> 205  
 <211> 50  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic

oligonucleotide probe

<400> 205  
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<210> 206  
<211> 1620  
<212> DNA  
<213> Homo sapiens

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<222> (973)..(973)  
<223> a, t, c or g

<220>  
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<222> (977)..(977)  
<223> a, t, c or g

<220>  
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<222> (996)..(996)  
<223> a, t, c or g

<220>  
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<222> (1003)..(1003)  
<223> a, t, c or g

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actttccttt gtgtggtagg acttgaggaa gaaatcccct ggactttcac taaccctctg 1560

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<210> 207

<211> 296

<212> PRT

<213> Homo sapiens

<400> 207

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20 25 30

Ser Ala Ala Phe Leu Leu Val Arg Lys Leu Pro Pro Leu Cys His Gly  
35 40 45

Leu Pro Thr Gln Arg Glu Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg  
50 55 60

Glu Val Glu Ile Leu Met Phe Leu Ser Ala Ile Val Met Met Lys Asn  
65 70 75 80

Arg Arg Ser Ile Thr Val Glu Gln His Ile Gly Asn Ile Phe Met Phe  
85 90 95

Ser Lys Val Ala Asn Thr Ile Leu Phe Phe Arg Leu Asp Ile Arg Met  
100 105 110

Gly Leu Leu Tyr Ile Thr Leu Cys Ile Val Phe Leu Met Thr Cys Lys  
115 120 125

Pro Pro Leu Tyr Met Gly Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys  
130 135 140

Thr Ile Asp Glu Glu Leu Glu Arg Asp Lys Arg Val Thr Trp Ile Val  
145 150 155 160

Glu Phe Phe Ala Asn Trp Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile  
165 170 175

Tyr Ala Asp Leu Ser Leu Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly  
180 185 190

Lys Val Asp Val Gly Arg Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val  
195 200 205

Ser Thr Ser Pro Leu Thr Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln  
210 215 220

Gly Gly Lys Glu Ala Met Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg  
225 230 235 240

Ala Val Ser Trp Thr Phe Ser Glu Glu Asn Val Ile Arg Glu Phe Asn  
245 250 255

Leu Asn Glu Leu Tyr Gln Arg Ala Lys Lys Leu Ser Lys Ala Gly Asp

260	265	270	
Asn Ile Pro Glu Glu Gln Pro Val Ala Ser Thr Pro Thr Thr Val Ser			
275	280	285	
Asp Gly Glu Asn Lys Lys Asp Lys			
290	295		
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<211> 24			
<212> DNA			
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<223> Description of Artificial Sequence: Synthetic oligonucleotide probe			
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<211> 20			
<212> DNA			
<213> Artificial Sequence			
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<223> Description of Artificial Sequence: Synthetic oligonucleotide probe			
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 <210> 210			
<211> 24			
<212> DNA			
<213> Artificial Sequence			
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<223> Description of Artificial Sequence: Synthetic oligonucleotide probe			
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aacagttggc cacagcatgg cagg			24
 <210> 211			
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<212> DNA			
<213> Artificial Sequence			
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 <210> 212			

<211> 1985  
 <212> DNA  
 <213> Homo sapiens

<400> 212  
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 aaaaaa 1985

<210> 213  
 <211> 360  
 <212> PRT  
 <213> Homo sapiens

<400> 213  
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 20 25 30  
 Gln Asn Leu Gly Asn Gly His Gly Lys Asp Leu Leu Asn Gly Val Lys  
 35 40 45  
 Leu Val Val Glu Thr Pro Glu Glu Thr Leu Phe Thr Tyr Gln Gly Ala  
 50 55 60

Ser	Val	Ile	Leu	Pro	Cys	Arg	Tyr	Arg	Tyr	Glu	Pro	Ala	Leu	Val	Ser	65	70	75	80
Pro	Arg	Arg	Val	Arg	Val	Lys	Trp	Trp	Lys	Leu	Ser	Glu	Asn	Gly	Ala	85	90	95	
Pro	Glu	Lys	Asp	Val	Leu	Val	Ala	Ile	Gly	Leu	Arg	His	Arg	Ser	Phe	100	105	110	
Gly	Asp	Tyr	Gln	Gly	Arg	Val	His	Leu	Arg	Gln	Asp	Lys	Glu	His	Asp	115	120	125	
Val	Ser	Leu	Glu	Ile	Gln	Asp	Leu	Arg	Leu	Glu	Asp	Tyr	Gly	Arg	Tyr	130	135	140	
Arg	Cys	Glu	Val	Ile	Asp	Gly	Leu	Glu	Asp	Glu	Ser	Gly	Leu	Val	Glu	145	150	155	160
Leu	Glu	Leu	Arg	Gly	Val	Val	Phe	Pro	Tyr	Gln	Ser	Pro	Asn	Gly	Arg	165	170	175	
Tyr	Gln	Phe	Asn	Phe	His	Glu	Gly	Gln	Gln	Val	Cys	Ala	Glu	Gln	Ala	180	185	190	
Ala	Val	Val	Ala	Ser	Phe	Glu	Gln	Leu	Phe	Arg	Ala	Trp	Glu	Glu	Gly	195	200	205	
Leu	Asp	Trp	Cys	Asn	Ala	Gly	Trp	Leu	Gln	Asp	Ala	Thr	Val	Gln	Tyr	210	215	220	
Pro	Ile	Met	Leu	Pro	Arg	Gln	Pro	Cys	Gly	Gly	Pro	Gly	Leu	Ala	Pro	225	230	235	240
Gly	Val	Arg	Ser	Tyr	Gly	Pro	Arg	His	Arg	Arg	Leu	His	Arg	Tyr	Asp	245	250	255	
Val	Phe	Cys	Phe	Ala	Thr	Ala	Leu	Lys	Gly	Arg	Val	Tyr	Tyr	Leu	Glu	260	265	270	
His	Pro	Glu	Lys	Leu	Thr	Leu	Thr	Glu	Ala	Arg	Glu	Ala	Cys	Gln	Glu	275	280	285	
Asp	Asp	Ala	Thr	Ile	Ala	Lys	Val	Gly	Gln	Leu	Phe	Ala	Ala	Trp	Lys	290	295	300	
Phe	His	Gly	Leu	Asp	Arg	Cys	Asp	Ala	Gly	Trp	Leu	Ala	Asp	Gly	Ser	305	310	315	320
Val	Arg	Tyr	Pro	Val	Val	His	Pro	His	Pro	Asn	Cys	Gly	Pro	Pro	Glu	325	330	335	
Pro	Gly	Val	Arg	Ser	Phe	Gly	Phe	Pro	Asp	Pro	Gln	Ser	Arg	Leu	Tyr	340	345	350	
Gly	Val	Tyr	Cys	Tyr	Arg	Gln	His									355	360		

<210> 214  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 214  
tgcttcgcta ctgccctc 18

<210> 215  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 215  
ttcccttggtg ggttgag 18

<210> 216  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 216  
agggctggaa gccagttc 18

<210> 217  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 217  
agccagttag gaaatgag 18

<210> 218  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe



<400> 218  
tgtccaaagt acacacacct gagg

24

<210> 219  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 219  
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45

<210> 220  
<211> 1503  
<212> DNA  
<213> Homo sapiens

<400> 220  
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tggccagggg aggggtgcacc aggcggcccc cctgagcgac gctccccatg atgacgcca 180  
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cgacgggcgt gtgggttggg aggagctgcg caacgccacc tatggccact acgcgcccgg 480  
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accttgaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1500  
aaa 1503

<210> 221  
<211> 328  
<212> PRT  
<213> Homo sapiens

<400> 221  
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Arg	Val	His	Gln	Ala	Ala	Pro	Leu	Ser	Asp	Ala	Pro	His	Asp	Asp	Ala	35	40	45
His	Gly	Asn	Phe	Gln	Tyr	Asp	His	Glu	Ala	Phe	Leu	Gly	Arg	Glu	Val	50	55	60
Ala	Lys	Glu	Phe	Asp	Gln	Leu	Thr	Pro	Glu	Glu	Ser	Gln	Ala	Arg	Leu	65	70	75
Gly	Arg	Ile	Val	Asp	Arg	Met	Asp	Arg	Ala	Gly	Asp	Gly	Asp	Gly	Trp	85	90	95
Val	Ser	Leu	Ala	Glu	Leu	Arg	Ala	Trp	Ile	Ala	His	Thr	Gln	Gln	Arg	100	105	110
His	Ile	Arg	Asp	Ser	Val	Ser	Ala	Ala	Trp	Asp	Thr	Tyr	Asp	Thr	Asp	115	120	125
Arg	Asp	Gly	Arg	Val	Gly	Trp	Glu	Glu	Leu	Arg	Asn	Ala	Thr	Tyr	Gly	130	135	140
His	Tyr	Ala	Pro	Gly	Glu	Glu	Phe	His	Asp	Val	Glu	Asp	Ala	Glu	Thr	145	150	155
Tyr	Lys	Lys	Met	Leu	Ala	Arg	Asp	Glu	Arg	Arg	Phe	Arg	Val	Ala	Asp	165	170	175
Gln	Asp	Gly	Asp	Ser	Met	Ala	Thr	Arg	Glu	Glu	Leu	Thr	Ala	Phe	Leu	180	185	190
His	Pro	Glu	Glu	Phe	Pro	His	Met	Arg	Asp	Ile	Val	Ile	Ala	Glu	Thr	195	200	205
Leu	Glu	Asp	Leu	Asp	Arg	Asn	Lys	Asp	Gly	Tyr	Val	Gln	Val	Glu	Glu	210	215	220
Tyr	Ile	Ala	Asp	Leu	Tyr	Ser	Ala	Glu	Pro	Gly	Glu	Glu	Glu	Pro	Ala	225	230	235
Trp	Val	Gln	Thr	Glu	Arg	Gln	Gln	Phe	Arg	Asp	Phe	Arg	Asp	Leu	Asn	245	250	255
Lys	Asp	Gly	His	Leu	Asp	Gly	Ser	Glu	Val	Gly	His	Trp	Val	Leu	Pro	260	265	270
Pro	Ala	Gln	Asp	Gln	Pro	Leu	Val	Glu	Ala	Asn	His	Leu	Leu	His	Glu	275	280	285
Ser	Asp	Thr	Asp	Lys	Asp	Gly	Arg	Leu	Ser	Lys	Ala	Glu	Ile	Leu	Gly	290	295	300
Asn	Trp	Asn	Met	Phe	Val	Gly	Ser	Gln	Ala	Thr	Asn	Tyr	Gly	Glu	Asp	305	310	315
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Leu Thr Arg His His Asp Glu Leu  
325

<210> 222  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 222  
cgcaggccct catggccagg 20

<210> 223  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 223  
gaaatcctgg gtaattgg 18

<210> 224  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 224  
gtgcgcggtg ctcacagctc atc 23

<210> 225  
<211> 44  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 225  
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<210> 226  
<211> 2403  
<212> DNA  
<213> Homo sapiens

<400> 226

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<210> 227

<211> 550

<212> PRT

<213> Homo sapiens

<400> 227

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Leu Leu Pro Gly Pro Ala Gly Ser Glu Gly Ala Ala Pro Ile Ala Ile  
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35 40 45

Leu Cys Pro Gly Gly Cys Pro Leu Glu Glu Phe Ser Val Tyr Gly Asn  
 50 55 60  
 Ile Val Tyr Ala Ser Val Ser Ser Ile Cys Gly Ala Ala Val His Arg  
 65 70 75 80  
 Gly Val Ile Ser Asn Ser Gly Gly Pro Val Arg Val Tyr Ser Leu Pro  
 85 90 95  
 Gly Arg Glu Asn Tyr Ser Ser Val Asp Ala Asn Gly Ile Gln Ser Gln  
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 Met Leu Ser Arg Trp Ser Ala Ser Phe Thr Val Thr Lys Gly Lys Ser  
 115 120 125  
 Ser Thr Gln Glu Ala Thr Gly Gln Ala Val Ser Thr Ala His Pro Pro  
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 Gly Gln Arg Arg Phe Asn Leu Gln Lys Asn Phe Val Gly Lys Val Ala  
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 195 200 205  
 Ala Ser Glu His Pro Lys Ile Glu Phe Tyr Leu Lys Asn Phe Thr Ser  
 210 215 220  
 Ala Lys Asp Val Leu Phe Ala Ile Lys Glu Val Gly Phe Arg Gly Gly  
 225 230 235 240  
 Asn Ser Asn Thr Gly Lys Ala Leu Lys His Thr Ala Gln Lys Phe Phe  
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 Thr Val Asp Ala Gly Val Arg Lys Gly Ile Pro Lys Val Val Val Val  
 260 265 270  
 Phe Ile Asp Gly Trp Pro Ser Asp Asp Ile Glu Glu Ala Gly Ile Val  
 275 280 285  
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 290 295 300  
 Ile Pro Glu Glu Leu Gly Met Val Gln Asp Val Thr Phe Val Asp Lys  
 305 310 315 320  
 Ala Val Cys Arg Asn Asn Gly Phe Phe Ser Tyr His Met Pro Asn Trp  
 325 330 335  
 Phe Gly Thr Thr Lys Tyr Val Lys Pro Leu Val Gln Lys Leu Cys Thr  
 340 345 350

His Glu Gln Met Met Cys Ser Lys Thr Cys Tyr Asn Ser Val Asn Ile  
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 Ala Phe Leu Ile Asp Gly Ser Ser Ser Val Gly Asp Ser Asn Phe Arg  
           370                                  375                                  380  
 Leu Met Leu Glu Phe Val Ser Asn Ile Ala Lys Thr Phe Glu Ile Ser  
           385                                  390                                  395                                  400  
 Asp Ile Gly Ala Lys Ile Ala Ala Val Gln Phe Thr Tyr Asp Gln Arg  
                                   405                                  410                                  415  
 Thr Glu Phe Ser Phe Thr Asp Tyr Ser Thr Lys Glu Asn Val Leu Ala  
                                   420                                  425                                  430  
 Val Ile Arg Asn Ile Arg Tyr Met Ser Gly Gly Thr Ala Thr Gly Asp  
                                   435                                  440                                  445  
 Ala Ile Ser Phe Thr Val Arg Asn Val Phe Gly Pro Ile Arg Glu Ser  
                                   450                                  455                                  460  
 Pro Asn Lys Asn Phe Leu Val Ile Val Thr Asp Gly Gln Ser Tyr Asp  
                                   465                                  470                                  475                                  480  
 Asp Val Gln Gly Pro Ala Ala Ala Ala His Asp Ala Gly Ile Thr Ile  
                                   485                                  490                                  495  
 Phe Ser Val Gly Val Ala Trp Ala Pro Leu Asp Asp Leu Lys Asp Met  
                                   500                                  505                                  510  
 Ala Ser Lys Pro Lys Glu Ser His Ala Phe Phe Thr Arg Glu Phe Thr  
                                   515                                  520                                  525  
 Gly Leu Glu Pro Ile Val Ser Asp Val Ile Arg Gly Ile Cys Arg Asp  
                                   530                                  535                                  540  
 Phe Leu Glu Ser Gln Gln  
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<210> 228

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
 oligonucleotide probe

<400> 228

tggtctcgca caccgatc

18

<210> 229

<211> 18

<212> DNA

<213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
         oligonucleotide probe

<400> 229  
 ctgctgtcca caggggag 18

<210> 230  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
         oligonucleotide probe

<400> 230  
 ccttgaagca tactgctc 18

<210> 231  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
         oligonucleotide probe

<400> 231  
 gagatagcaa tttccgcc 18

<210> 232  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
         oligonucleotide probe

<400> 232  
 ttcttcaaga gggcagcc 18

<210> 233  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
         oligonucleotide probe

<400> 233  
 cttggcacca atgtccgaga tttc 24

<210> 234  
 <211> 45

<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide probe

<400> 234

gctctgagga aggtgacgcg cggggcctcc gaacccttgg ccttg

45

<210> 235

<211> 2586

<212> DNA

<213> Homo sapiens

<400> 235

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ccggcgccct	ccggcgccga	gcgagcagat	ccagtcgggc	ccgcagcgca	actcgggtcca	120
gtcggggcgg	cggctgcggg	cgcagagcgg	agatgcagcg	gcttggggcc	accctgctgt	180
gcctgctgct	ggcgccggcg	gtccccacgg	ccccgcgcc	cgctccgacg	gcgacctcgg	240
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tacctccag	ctatcacaa	gagaccaaca	cagacacgaa	ggttggaat	aataccatcc	480
atgtgcaccg	agaaattcac	aagataacca	acaaccagac	tggacaaatg	gtcttttcag	540
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acgaggactg	tgggcccagc	atgtactgcc	agtttgccag	cttccagtac	acctgccagc	660
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tgatgttttc	aggtgtcatg	gactgttgcc	accatgtatt	catccagagt	tcttaaagtt	2460



taaagttgca catgattgta taagcatgct ttctttgagt tttaaattat gtataaacat 2520  
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aaaaaa 2586

<210> 236  
<211> 350  
<212> PRT  
<213> Homo sapiens

<400> 236  
Met Gln Arg Leu Gly Ala Thr Leu Leu Cys Leu Leu Leu Ala Ala Ala  
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35 40 45  
Glu Met Phe Arg Glu Val Glu Glu Leu Met Glu Asp Thr Gln His Lys  
50 55 60  
Leu Arg Ser Ala Val Glu Glu Met Glu Ala Glu Glu Ala Ala Ala Lys  
65 70 75 80  
Ala Ser Ser Glu Val Asn Leu Ala Asn Leu Pro Pro Ser Tyr His Asn  
85 90 95  
Glu Thr Asn Thr Asp Thr Lys Val Gly Asn Asn Thr Ile His Val His  
100 105 110  
Arg Glu Ile His Lys Ile Thr Asn Asn Gln Thr Gly Gln Met Val Phe  
115 120 125  
Ser Glu Thr Val Ile Thr Ser Val Gly Asp Glu Glu Gly Arg Arg Ser  
130 135 140  
His Glu Cys Ile Ile Asp Glu Asp Cys Gly Pro Ser Met Tyr Cys Gln  
145 150 155 160  
Phe Ala Ser Phe Gln Tyr Thr Cys Gln Pro Cys Arg Gly Gln Arg Met  
165 170 175  
Leu Cys Thr Arg Asp Ser Glu Cys Cys Gly Asp Gln Leu Cys Val Trp  
180 185 190  
Gly His Cys Thr Lys Met Ala Thr Arg Gly Ser Asn Gly Thr Ile Cys  
195 200 205  
Asp Asn Gln Arg Asp Cys Gln Pro Gly Leu Cys Cys Ala Phe Gln Arg  
210 215 220  
Gly Leu Leu Phe Pro Val Cys Thr Pro Leu Pro Val Glu Gly Glu Leu  
225 230 235 240  
Cys His Asp Pro Ala Ser Arg Leu Leu Asp Leu Ile Thr Trp Glu Leu  
245 250 255

Glu Pro Asp Gly Ala Leu Asp Arg Cys Pro Cys Ala Ser Gly Leu Leu  
260 265 270

Cys Gln Pro His Ser His Ser Leu Val Tyr Val Cys Lys Pro Thr Phe  
275 280 285

Val Gly Ser Arg Asp Gln Asp Gly Glu Ile Leu Leu Pro Arg Glu Val  
290 295 300

Pro Asp Glu Tyr Glu Val Gly Ser Phe Met Glu Glu Val Arg Gln Glu  
305 310 315 320

Leu Glu Asp Leu Glu Arg Ser Leu Thr Glu Glu Met Ala Leu Gly Glu  
325 330 335

Pro Ala Ala Ala Ala Ala Ala Leu Leu Gly Gly Glu Glu Ile  
340 345 350

<210> 237

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 237

ggagctgcac cccttgc

17

<210> 238

<211> 49

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 238

ggaggactgt gccaccatga gagactcttc aaaccaagg caaaattgg

49

<210> 239

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 239

gcagagcgga gatgcagcgg cttg

24

<210> 240

<211> 18

<212> DNA

<213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 240  
 ttggcagctt catggagg 18

<210> 241  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 241  
 cctgggcaaa aatgcaac 18

<210> 242  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 242  
 ctccagctcc tggcgcacct cctc 24

<210> 243  
 <211> 45  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 243  
 ggctctcagc taccgcgag gagcgaggcc accctcaatg agatg 45

<210> 244  
 <211> 3679  
 <212> DNA  
 <213> Homo Sapien

<400> 244  
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 tctctctggg ctcaagaagga ctctgaagat aacaataatt tcagcccatc 100  
 cactctcctt ccctcccaaa cacacatgtg catgtacaca cacacataca 150  
 cacacataca ccttcctctc cttaactgaa gactcacagt cactcactct 200  
 gtgagcaggt catagaaaag gacactaaag ccttaaggac aggcttggcc 250  
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agaaaccccc atctctacta aaaatacaaa aattagccag gagtggtggc 450  
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gaatccagga ggcggaggat gcagtcagct gagtgcaccg ctgcactcca 550  
gcctgggtga cagaatgaga ctctgtctca aacaaacaaa cacgggagga 600  
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 aagttgccct tacctcctag ggtcacctct gctgccattc tgaggaacat 3250  
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 aataaaaata aataataaca ataaaaaaaa 3679

<210> 245  
 <211> 713  
 <212> PRT  
 <213> Homo Sapien

<400> 245  
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 Ala Thr Ala Thr Val Pro Val Val Pro Trp His Val Pro Cys Pro  
 20 25 30  
 Pro Gln Cys Ala Cys Gln Ile Arg Pro Trp Tyr Thr Pro Arg Ser  
 35 40 45  
 Ser Tyr Arg Glu Ala Thr Thr Val Asp Cys Asn Asp Leu Phe Leu  
 50 55 60  
 Thr Ala Val Pro Pro Ala Leu Pro Ala Gly Thr Gln Thr Leu Leu  
 65 70 75  
 Leu Gln Ser Asn Ser Ile Val Arg Val Asp Gln Ser Glu Leu Gly  
 80 85 90  
 Tyr Leu Ala Asn Leu Thr Glu Leu Asp Leu Ser Gln Asn Ser Phe  
 95 100 105  
 Ser Asp Ala Arg Asp Cys Asp Phe His Ala Leu Pro Gln Leu Leu  
 110 115 120  
 Ser Leu His Leu Glu Glu Asn Gln Leu Thr Arg Leu Glu Asp His  
 125 130 135  
 Ser Phe Ala Gly Leu Ala Ser Leu Gln Glu Leu Tyr Leu Asn His  
 140 145 150

Asn	Gln	Leu	Tyr	Arg	Ile	Ala	Pro	Arg	Ala	Phe	Ser	Gly	Leu	Ser	155	160	165
Asn	Leu	Leu	Arg	Leu	His	Leu	Asn	Ser	Asn	Leu	Leu	Arg	Ala	Ile	170	175	180
Asp	Ser	Arg	Trp	Phe	Glu	Met	Leu	Pro	Asn	Leu	Glu	Ile	Leu	Met	185	190	195
Ile	Gly	Gly	Asn	Lys	Val	Asp	Ala	Ile	Leu	Asp	Met	Asn	Phe	Arg	200	205	210
Pro	Leu	Ala	Asn	Leu	Arg	Ser	Leu	Val	Leu	Ala	Gly	Met	Asn	Leu	215	220	225
Arg	Glu	Ile	Ser	Asp	Tyr	Ala	Leu	Glu	Gly	Leu	Gln	Ser	Leu	Glu	230	235	240
Ser	Leu	Ser	Phe	Tyr	Asp	Asn	Gln	Leu	Ala	Arg	Val	Pro	Arg	Arg	245	250	255
Ala	Leu	Glu	Gln	Val	Pro	Gly	Leu	Lys	Phe	Leu	Asp	Leu	Asn	Lys	260	265	270
Asn	Pro	Leu	Gln	Arg	Val	Gly	Pro	Gly	Asp	Phe	Ala	Asn	Met	Leu	275	280	285
His	Leu	Lys	Glu	Leu	Gly	Leu	Asn	Asn	Met	Glu	Glu	Leu	Val	Ser	290	295	300
Ile	Asp	Lys	Phe	Ala	Leu	Val	Asn	Leu	Pro	Glu	Leu	Thr	Lys	Leu	305	310	315
Asp	Ile	Thr	Asn	Asn	Pro	Arg	Leu	Ser	Phe	Ile	His	Pro	Arg	Ala	320	325	330
Phe	His	His	Leu	Pro	Gln	Met	Glu	Thr	Leu	Met	Leu	Asn	Asn	Asn	335	340	345
Ala	Leu	Ser	Ala	Leu	His	Gln	Gln	Thr	Val	Glu	Ser	Leu	Pro	Asn	350	355	360
Leu	Gln	Glu	Val	Gly	Leu	His	Gly	Asn	Pro	Ile	Arg	Cys	Asp	Cys	365	370	375
Val	Ile	Arg	Trp	Ala	Asn	Ala	Thr	Gly	Thr	Arg	Val	Arg	Phe	Ile	380	385	390
Glu	Pro	Gln	Ser	Thr	Leu	Cys	Ala	Glu	Pro	Pro	Asp	Leu	Gln	Arg	395	400	405
Leu	Pro	Val	Arg	Glu	Val	Pro	Phe	Arg	Glu	Met	Thr	Asp	His	Cys	410	415	420
Leu	Pro	Leu	Ile	Ser	Pro	Arg	Ser	Phe	Pro	Pro	Ser	Leu	Gln	Val	425	430	435

Ala Ser Gly Glu	Ser Met Val Leu His	Cys Arg Ala Leu Ala Glu	440	445	450
Pro Glu Pro Glu	Ile Tyr Trp Val Thr	Pro Ala Gly Leu Arg Leu	455	460	465
Thr Pro Ala His	Ala Gly Arg Arg Tyr	Arg Val Tyr Pro Glu Gly	470	475	480
Thr Leu Glu Leu	Arg Arg Val Thr Ala	Glu Glu Ala Gly Leu Tyr	485	490	495
Thr Cys Val Ala	Gln Asn Leu Val Gly	Ala Asp Thr Lys Thr Val	500	505	510
Ser Val Val Val	Gly Arg Ala Leu Leu	Gln Pro Gly Arg Asp Glu	515	520	525
Gly Gln Gly Leu	Glu Leu Arg Val Gln	Glu Thr His Pro Tyr His	530	535	540
Ile Leu Leu Ser	Trp Val Thr Pro Pro	Asn Thr Val Ser Thr Asn	545	550	555
Leu Thr Trp Ser	Ser Ala Ser Ser Leu	Arg Gly Gln Gly Ala Thr	560	565	570
Ala Leu Ala Arg	Leu Pro Arg Gly Thr	His Ser Tyr Asn Ile Thr	575	580	585
Arg Leu Leu Gln	Ala Thr Glu Tyr Trp	Ala Cys Leu Gln Val Ala	590	595	600
Phe Ala Asp Ala	His Thr Gln Leu Ala	Cys Val Trp Ala Arg Thr	605	610	615
Lys Glu Ala Thr	Ser Cys His Arg Ala	Leu Gly Asp Arg Pro Gly	620	625	630
Leu Ile Ala Ile	Leu Ala Leu Ala Val	Leu Leu Leu Ala Ala Gly	635	640	645
Leu Ala Ala His	Leu Gly Thr Gly Gln	Pro Arg Lys Gly Val Gly	650	655	660
Gly Arg Arg Pro	Leu Pro Pro Ala Trp	Ala Phe Trp Gly Trp Ser	665	670	675
Ala Pro Ser Val	Arg Val Val Ser Ala	Pro Leu Val Leu Pro Trp	680	685	690
Asn Pro Gly Arg	Lys Leu Pro Arg Ser	Ser Glu Gly Glu Thr Leu	695	700	705
Leu Pro Pro Leu	Ser Gln Asn Ser		710		



<210> 246  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 246  
aacaaggtaa gatgccatcc tg 22

<210> 247  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 247  
aaacttgtag atggagacca gctc 24

<210> 248  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 248  
aggggctgca aagcctggag agcctctcct tctatgacaa ccagc 45

<210> 249  
<211> 3401  
<212> DNA  
<213> Homo Sapien

<400> 249  
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ccctgacact gtgtttgacc tgggtggagct ggaggtcctc aagctggagc 650  
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<210> 250

<211> 546

<212> PRT

<213> Homo Sapien

<400> 250

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Cys	Tyr	Thr	Val	Tyr	Tyr	Val	His	Asn	Ile	Lys	Phe	Asp	Val	Asp
			20						25				30	

Cys	Thr	Val	Asp	Ile	Glu	Ser	Leu	Thr	Gly	Tyr	Arg	Thr	Tyr	Arg
			35						40				45	

Cys	Ala	His	Pro	Leu	Ala	Thr	Leu	Phe	Lys	Ile	Leu	Ala	Ser	Phe
				50					55					60

Tyr	Ile	Ser	Leu	Val	Ile	Phe	Tyr	Gly	Leu	Ile	Cys	Met	Tyr	Thr
			65						70					75

Leu	Trp	Trp	Met	Leu	Arg	Arg	Ser	Leu	Lys	Lys	Tyr	Ser	Phe	Glu
			80						85					90

Ser	Ile	Arg	Glu	Glu	Ser	Ser	Tyr	Ser	Asp	Ile	Pro	Asp	Val	Lys
			95						100					105

Asn	Asp	Phe	Ala	Phe	Met	Leu	His	Leu	Ile	Asp	Gln	Tyr	Asp	Pro
			110						115					120

Leu	Tyr	Ser	Lys	Arg	Phe	Ala	Val	Phe	Leu	Ser	Glu	Val	Ser	Glu
			125						130					135

Asn	Lys	Leu	Arg	Gln	Leu	Asn	Leu	Asn	Asn	Glu	Trp	Thr	Leu	Asp
			140						145					150

Lys	Leu	Arg	Gln	Arg	Leu	Thr	Lys	Asn	Ala	Gln	Asp	Lys	Leu	Glu
			155						160					165

Leu	His	Leu	Phe	Met	Leu	Ser	Gly	Ile	Pro	Asp	Thr	Val	Phe	Asp
			170						175					180

Leu	Val	Glu	Leu	Glu	Val	Leu	Lys	Leu	Glu	Leu	Ile	Pro	Asp	Val
			185						190					195

Thr	Ile	Pro	Pro	Ser	Ile	Ala	Gln	Leu	Thr	Gly	Leu	Lys	Glu	Leu
				200					205					210

Trp Leu Tyr His Thr Ala Ala Lys Ile Glu Ala Pro Ala Leu Ala

215	220	225
Phe Leu Arg Glu Asn Leu Arg Ala Leu	His Ile Lys Phe Thr Asp	
230	235	240
Ile Lys Glu Ile Pro Leu Trp Ile Tyr	Ser Leu Lys Thr Leu Glu	
245	250	255
Glu Leu His Leu Thr Gly Asn Leu Ser	Ala Glu Asn Asn Arg Tyr	
260	265	270
Ile Val Ile Asp Gly Leu Arg Glu Leu	Lys Arg Leu Lys Val Leu	
275	280	285
Arg Leu Lys Ser Asn Leu Ser Lys Leu	Pro Gln Val Val Thr Asp	
290	295	300
Val Gly Val His Leu Gln Lys Leu Ser	Ile Asn Asn Glu Gly Thr	
305	310	315
Lys Leu Ile Val Leu Asn Ser Leu Lys	Lys Met Ala Asn Leu Thr	
320	325	330
Glu Leu Glu Leu Ile Arg Cys Asp Leu	Glu Arg Ile Pro His Ser	
335	340	345
Ile Phe Ser Leu His Asn Leu Gln Glu	Ile Asp Leu Lys Asp Asn	
350	355	360
Asn Leu Lys Thr Ile Glu Glu Ile Ile	Ser Phe Gln His Leu His	
365	370	375
Arg Leu Thr Cys Leu Lys Leu Trp Tyr	Asn His Ile Ala Tyr Ile	
380	385	390
Pro Ile Gln Ile Gly Asn Leu Thr Asn	Leu Glu Arg Leu Tyr Leu	
395	400	405
Asn Arg Asn Lys Ile Glu Lys Ile Pro	Thr Gln Leu Phe Tyr Cys	
410	415	420
Arg Lys Leu Arg Tyr Leu Asp Leu Ser	His Asn Asn Leu Thr Phe	
425	430	435
Leu Pro Ala Asp Ile Gly Leu Leu Gln	Asn Leu Gln Asn Leu Ala	
440	445	450
Ile Thr Ala Asn Arg Ile Glu Thr Leu	Pro Pro Glu Leu Phe Gln	
455	460	465
Cys Arg Lys Leu Arg Ala Leu His Leu	Gly Asn Asn Val Leu Gln	
470	475	480
Ser Leu Pro Ser Arg Val Gly Glu Leu	Thr Asn Leu Thr Gln Ile	
485	490	495

Glu Leu Arg Gly Asn Arg Leu Glu Cys Leu Pro Val Glu Leu Gly  
500 505 510

Glu Cys Pro Leu Leu Lys Arg Ser Gly Leu Val Val Glu Glu Asp  
515 520 525

Leu Phe Asn Thr Leu Pro Pro Glu Val Lys Glu Arg Leu Trp Arg  
530 535 540

Ala Asp Lys Glu Gln Ala  
545

<210> 251  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 251  
caacaatgag ggcaccaagc 20

<210> 252  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 252  
gatggctagg ttctggaggt tctg 24

<210> 253  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 253  
caacctgcag gagattgacc tcaaggacaa caacctcaag accatcg 47

<210> 254  
<211> 1650  
<212> DNA  
<213> Homo Sapien

<400> 254  
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tgaacgcagg agctgtcatt gactggccca cagaggaggg caaggaagta 150

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taaaaaattg atttgttttg atcaaaaataa aggatgataa tagatattaa 1650

<210> 255

<211> 452

<212> PRT

<213> Homo Sapien

<400> 255

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Leu	Leu	Pro	Leu	Leu	Leu	Gly	Leu	Asn	Ala	Gly	Ala	Val	Ile	Asp
				20					25					30

Trp	Pro	Thr	Glu	Glu	Gly	Lys	Glu	Val	Trp	Asp	Tyr	Val	Thr	Val
				35					40					45

Arg	Lys	Asp	Ala	Tyr	Met	Phe	Trp	Trp	Leu	Tyr	Tyr	Ala	Thr	Asn
				50					55					60

Ser	Cys	Lys	Asn	Phe	Ser	Glu	Leu	Pro	Leu	Val	Met	Trp	Leu	Gln
				65					70					75

Gly	Gly	Pro	Gly	Gly	Ser	Ser	Thr	Gly	Phe	Gly	Asn	Phe	Glu	Glu
				80					85					90

Ile	Gly	Pro	Leu	Asp	Ser	Asp	Leu	Lys	Pro	Arg	Lys	Thr	Thr	Trp
				95					100					105

Leu	Gln	Ala	Ala	Ser	Leu	Leu	Phe	Val	Asp	Asn	Pro	Val	Gly	Thr
				110					115					120

Gly	Phe	Ser	Tyr	Val	Asn	Gly	Ser	Gly	Ala	Tyr	Ala	Lys	Asp	Leu
				125					130					135

Ala	Met	Val	Ala	Ser	Asp	Met	Met	Val	Leu	Leu	Lys	Thr	Phe	Phe
				140					145					150

Ser	Cys	His	Lys	Glu	Phe	Gln	Thr	Val	Pro	Phe	Tyr	Ile	Phe	Ser
				155					160					165

Glu	Ser	Tyr	Gly	Gly	Lys	Met	Ala	Ala	Gly	Ile	Gly	Leu	Glu	Leu
				170					175					180

Tyr	Lys	Ala	Ile	Gln	Arg	Gly	Thr	Ile	Lys	Cys	Asn	Phe	Ala	Gly
				185					190					195

Val	Ala	Leu	Gly	Asp	Ser	Trp	Ile	Ser	Pro	Val	Asp	Ser	Val	Leu
				200					205					210

Ser	Trp	Gly	Pro	Tyr	Leu	Tyr	Ser	Met	Ser	Leu	Leu	Glu	Asp	Lys
				215					220					225

Gly	Leu	Ala	Glu	Val	Ser	Lys	Val	Ala	Glu	Gln	Val	Leu	Asn	Ala
				230					235					240



Val Asn Lys Gly	Leu Tyr Arg Glu Ala	Thr Glu Leu Trp Gly	Lys
245		250	255
Ala Glu Met Ile	Ile Glu Gln Asn Thr	Asp Gly Val Asn Phe	Tyr
260		265	270
Asn Ile Leu Thr	Lys Ser Thr Pro Thr	Ser Thr Met Glu Ser	Ser
275		280	285
Leu Glu Phe Thr	Gln Ser His Leu Val	Cys Leu Cys Gln Arg	His
290		295	300
Val Arg His Leu	Gln Arg Asp Ala Leu	Ser Gln Leu Met Asn	Gly
305		310	315
Pro Ile Arg Lys	Lys Leu Lys Ile Ile	Pro Glu Asp Gln Ser	Trp
320		325	330
Gly Gly Gln Ala	Thr Asn Val Phe Val	Asn Met Glu Glu Asp	Phe
335		340	345
Met Lys Pro Val	Ile Ser Ile Val Asp	Glu Leu Leu Glu Ala	Gly
350		355	360
Ile Asn Val Thr	Val Tyr Asn Gly Gln	Leu Asp Leu Ile Val	Asp
365		370	375
Thr Met Gly Gln	Glu Ala Trp Val Arg	Lys Leu Lys Trp Pro	Glu
380		385	390
Leu Pro Lys Phe	Ser Gln Leu Lys Trp	Lys Ala Leu Tyr Ser	Asp
395		400	405
Pro Lys Ser Leu	Glu Thr Ser Ala Phe	Val Lys Ser Tyr Lys	Asn
410		415	420
Leu Ala Phe Tyr	Trp Ile Leu Lys Ala	Gly His Met Val Pro	Ser
425		430	435
Asp Gln Gly Asp	Met Ala Leu Lys Met	Met Arg Leu Val Thr	Gln
440		445	450

Gln Glu

<210> 256

<211> 1100

<212> DNA

<213> Homo Sapien

<400> 256

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<210> 257

<211> 314

<212> PRT

<213> Homo Sapien

<400> 257

Met	Gly	Ala	Arg	Gly	Ala	Leu	Leu	Leu	Ala	Leu	Leu	Leu	Ala	Arg
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Ala	Gly	Leu	Arg	Lys	Pro	Glu	Ser	Gln	Glu	Ala	Ala	Pro	Leu	Ser
				20					25				30	

Gly	Pro	Cys	Gly	Arg	Arg	Val	Ile	Thr	Ser	Arg	Ile	Val	Gly	Gly
				35					40					45

Glu	Asp	Ala	Glu	Leu	Gly	Arg	Trp	Pro	Trp	Gln	Gly	Ser	Leu	Arg
				50					55					60

Leu	Trp	Asp	Ser	His	Val	Cys	Gly	Val	Ser	Leu	Leu	Ser	His	Arg
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

	65		70		75									
Trp	Ala	Leu	Thr	Ala	Ala	His	Cys	Phe	Glu	Thr	Tyr	Ser	Asp	Leu
	80								85					90
Ser	Asp	Pro	Ser	Gly	Trp	Met	Val	Gln	Phe	Gly	Gln	Leu	Thr	Ser
				95					100					105
Met	Pro	Ser	Phe	Trp	Ser	Leu	Gln	Ala	Tyr	Tyr	Thr	Arg	Tyr	Phe
				110					115					120
Val	Ser	Asn	Ile	Tyr	Leu	Ser	Pro	Arg	Tyr	Leu	Gly	Asn	Ser	Pro
				125					130					135
Tyr	Asp	Ile	Ala	Leu	Val	Lys	Leu	Ser	Ala	Pro	Val	Thr	Tyr	Thr
				140					145					150
Lys	His	Ile	Gln	Pro	Ile	Cys	Leu	Gln	Ala	Ser	Thr	Phe	Glu	Phe
				155					160					165
Glu	Asn	Arg	Thr	Asp	Cys	Trp	Val	Thr	Gly	Trp	Gly	Tyr	Ile	Lys
				170					175					180
Glu	Asp	Glu	Ala	Leu	Pro	Ser	Pro	His	Thr	Leu	Gln	Glu	Val	Gln
				185					190					195
Val	Ala	Ile	Ile	Asn	Asn	Ser	Met	Cys	Asn	His	Leu	Phe	Leu	Lys
				200					205					210
Tyr	Ser	Phe	Arg	Lys	Asp	Ile	Phe	Gly	Asp	Met	Val	Cys	Ala	Gly
				215					220					225
Asn	Ala	Gln	Gly	Gly	Lys	Asp	Ala	Cys	Phe	Gly	Asp	Ser	Gly	Gly
				230					235					240
Pro	Leu	Ala	Cys	Asn	Lys	Asn	Gly	Leu	Trp	Tyr	Gln	Ile	Gly	Val
				245					250					255
Val	Ser	Trp	Gly	Val	Gly	Cys	Gly	Arg	Pro	Asn	Arg	Pro	Gly	Val
				260					265					270
Tyr	Thr	Asn	Ile	Ser	His	His	Phe	Glu	Trp	Ile	Gln	Lys	Leu	Met
				275					280					285
Ala	Gln	Ser	Gly	Met	Ser	Gln	Pro	Asp	Pro	Ser	Trp	Pro	Leu	Leu
				290					295					300
Phe	Phe	Pro	Leu	Leu	Trp	Ala	Leu	Pro	Leu	Leu	Gly	Pro	Val	
				305					310					

<210> 258

<211> 2427

<212> DNA

<213> Homo Sapien

<400> 258

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<210> 259

<211> 556

<212> PRT

<213> Homo Sapien

<400> 259

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Ser	Gly	Lys	Cys	Ser	Tyr	Ser	Pro	Glu	Pro	Asp	Gln	Arg	Arg	Thr
				20					25					30

Leu	Pro	Pro	Gly	Trp	Val	Ser	Leu	Gly	Arg	Ala	Asp	Pro	Glu	Glu
				35					40					45

Glu	Leu	Ser	Leu	Thr	Phe	Ala	Leu	Arg	Gln	Gln	Asn	Val	Glu	Arg
				50					55					60

Leu Ser Glu Leu Val Gln Ala Val Ser Asp Pro Ser Ser Pro Gln	65	70	75
Tyr Gly Lys Tyr Leu Thr Leu Glu Asn Val Ala Asp Leu Val Arg	80	85	90
Pro Ser Pro Leu Thr Leu His Thr Val Gln Lys Trp Leu Leu Ala	95	100	105
Ala Gly Ala Gln Lys Cys His Ser Val Ile Thr Gln Asp Phe Leu	110	115	120
Thr Cys Trp Leu Ser Ile Arg Gln Ala Glu Leu Leu Leu Pro Gly	125	130	135
Ala Glu Phe His His Tyr Val Gly Gly Pro Thr Glu Thr His Val	140	145	150
Val Arg Ser Pro His Pro Tyr Gln Leu Pro Gln Ala Leu Ala Pro	155	160	165
His Val Asp Phe Val Gly Gly Leu His Arg Phe Pro Pro Thr Ser	170	175	180
Ser Leu Arg Gln Arg Pro Glu Pro Gln Val Thr Gly Thr Val Gly	185	190	195
Leu His Leu Gly Val Thr Pro Ser Val Ile Arg Lys Arg Tyr Asn	200	205	210
Leu Thr Ser Gln Asp Val Gly Ser Gly Thr Ser Asn Asn Ser Gln	215	220	225
Ala Cys Ala Gln Phe Leu Glu Gln Tyr Phe His Asp Ser Asp Leu	230	235	240
Ala Gln Phe Met Arg Leu Phe Gly Gly Asn Phe Ala His Gln Ala	245	250	255
Ser Val Ala Arg Val Val Gly Gln Gln Gly Arg Gly Arg Ala Gly	260	265	270
Ile Glu Ala Ser Leu Asp Val Gln Tyr Leu Met Ser Ala Gly Ala	275	280	285
Asn Ile Ser Thr Trp Val Tyr Ser Ser Pro Gly Arg His Glu Gly	290	295	300
Gln Glu Pro Phe Leu Gln Trp Leu Met Leu Leu Ser Asn Glu Ser	305	310	315
Ala Leu Pro His Val His Thr Val Ser Tyr Gly Asp Asp Glu Asp	320	325	330
Ser Leu Ser Ser Ala Tyr Ile Gln Arg Val Asn Thr Glu Leu Met	335	340	345

Lys	Ala	Ala	Ala	Arg	Gly	Leu	Thr	Leu	Leu	Phe	Ala	Ser	Gly	Asp	350	355	360
Ser	Gly	Ala	Gly	Cys	Trp	Ser	Val	Ser	Gly	Arg	His	Gln	Phe	Arg	365	370	375
Pro	Thr	Phe	Pro	Ala	Ser	Ser	Pro	Tyr	Val	Thr	Thr	Val	Gly	Gly	380	385	390
Thr	Ser	Phe	Gln	Glu	Pro	Phe	Leu	Ile	Thr	Asn	Glu	Ile	Val	Asp	395	400	405
Tyr	Ile	Ser	Gly	Gly	Gly	Phe	Ser	Asn	Val	Phe	Pro	Arg	Pro	Ser	410	415	420
Tyr	Gln	Glu	Glu	Ala	Val	Thr	Lys	Phe	Leu	Ser	Ser	Ser	Pro	His	425	430	435
Leu	Pro	Pro	Ser	Ser	Tyr	Phe	Asn	Ala	Ser	Gly	Arg	Ala	Tyr	Pro	440	445	450
Asp	Val	Ala	Ala	Leu	Ser	Asp	Gly	Tyr	Trp	Val	Val	Ser	Asn	Arg	455	460	465
Val	Pro	Ile	Pro	Trp	Val	Ser	Gly	Thr	Ser	Ala	Ser	Thr	Pro	Val	470	475	480
Phe	Gly	Gly	Ile	Leu	Ser	Leu	Ile	Asn	Glu	His	Arg	Ile	Leu	Ser	485	490	495
Gly	Arg	Pro	Pro	Leu	Gly	Phe	Leu	Asn	Pro	Arg	Leu	Tyr	Gln	Gln	500	505	510
His	Gly	Ala	Gly	Leu	Phe	Asp	Val	Thr	Arg	Gly	Cys	His	Glu	Ser	515	520	525
Cys	Leu	Asp	Glu	Glu	Val	Glu	Gly	Gln	Gly	Phe	Cys	Ser	Gly	Pro	530	535	540
Gly	Trp	Asp	Pro	Val	Thr	Gly	Trp	Gly	Thr	Pro	Thr	Ser	Gln	Leu	545	550	555

Cys

<210> 260

<211> 1638

<212> DNA

<213> Homo Sapien

<400> 260

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attccagggc tcctcttcct tctcttcttt ctgctctgtg ctgttgggca 150

agtgagccct tacagtgcc cctggaaacc cacttggcct gcataccgcc 200  
tccctgtcgt cttgccccag tctaccctca atttagccaa gccagacttt 250  
ggagccgaag ccaaattaga agtatcttct tcatgtggac ccagtggtca 300  
taagggaact ccactgcca cttacgaaga ggccaagcaa tatctgtctt 350  
atgaaacgct ctatgccaat ggcagccgca cagagacgca ggtgggcatc 400  
tacatcctca gcagtagtgg agatggggcc caacaccgag actcagggtc 450  
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gcagctgcca gggggcagaa ttcacttctc tggttatgac aatgaccgac 950  
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atatttggca tacaagagat atgaaaaaaa aaaaaaaa 1638

<210> 261

<211> 383

<212> PRT

<213> Homo Sapien

<400> 261

Met	Ala	Gly	Ile	Pro	Gly	Leu	Leu	Phe	Leu	Leu	Phe	Phe	Leu	Leu	
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Cys	Ala	Val	Gly	Gln	Val	Ser	Pro	Tyr	Ser	Ala	Pro	Trp	Lys	Pro	
			20					25						30	
Thr	Trp	Pro	Ala	Tyr	Arg	Leu	Pro	Val	Val	Leu	Pro	Gln	Ser	Thr	
			35					40						45	
Leu	Asn	Leu	Ala	Lys	Pro	Asp	Phe	Gly	Ala	Glu	Ala	Lys	Leu	Glu	
			50					55						60	
Val	Ser	Ser	Ser	Cys	Gly	Pro	Gln	Cys	His	Lys	Gly	Thr	Pro	Leu	
			65					70						75	
Pro	Thr	Tyr	Glu	Glu	Ala	Lys	Gln	Tyr	Leu	Ser	Tyr	Glu	Thr	Leu	
			80					85						90	
Tyr	Ala	Asn	Gly	Ser	Arg	Thr	Glu	Thr	Gln	Val	Gly	Ile	Tyr	Ile	
			95					100						105	
Leu	Ser	Ser	Ser	Gly	Asp	Gly	Ala	Gln	His	Arg	Asp	Ser	Gly	Ser	
			110					115						120	
Ser	Gly	Lys	Ser	Arg	Arg	Lys	Arg	Gln	Ile	Tyr	Gly	Tyr	Asp	Ser	
			125					130						135	
Arg	Phe	Ser	Ile	Phe	Gly	Lys	Asp	Phe	Leu	Leu	Asn	Tyr	Pro	Phe	
			140					145						150	
Ser	Thr	Ser	Val	Lys	Leu	Ser	Thr	Gly	Cys	Thr	Gly	Thr	Leu	Val	
			155					160						165	
Ala	Glu	Lys	His	Val	Leu	Thr	Ala	Ala	His	Cys	Ile	His	Asp	Gly	
			170					175						180	
Lys	Thr	Tyr	Val	Lys	Gly	Thr	Gln	Lys	Leu	Arg	Val	Gly	Phe	Leu	
			185					190						195	
Lys	Pro	Lys	Phe	Lys	Asp	Gly	Gly	Arg	Gly	Ala	Asn	Asp	Ser	Thr	
			200					205						210	
Ser	Ala	Met	Pro	Glu	Gln	Met	Lys	Phe	Gln	Trp	Ile	Arg	Val	Lys	
			215					220						225	
Arg	Thr	His	Val	Pro	Lys	Gly	Trp	Ile	Lys	Gly	Asn	Ala	Asn	Asp	
			230					235						240	

Ile Gly Met Asp Tyr Asp Tyr Ala Leu Leu Glu Leu Lys Lys Pro	245	250	255
His Lys Arg Lys Phe Met Lys Ile Gly Val Ser Pro Pro Ala Lys	260	265	270
Gln Leu Pro Gly Gly Arg Ile His Phe Ser Gly Tyr Asp Asn Asp	275	280	285
Arg Pro Gly Asn Leu Val Tyr Arg Phe Cys Asp Val Lys Asp Glu	290	295	300
Thr Tyr Asp Leu Leu Tyr Gln Gln Cys Asp Ala Gln Pro Gly Ala	305	310	315
Ser Gly Ser Gly Val Tyr Val Arg Met Trp Lys Arg Gln Gln Gln	320	325	330
Lys Trp Glu Arg Lys Ile Ile Gly Ile Phe Ser Gly His Gln Trp	335	340	345
Val Asp Met Asn Gly Ser Pro Gln Asp Phe Asn Val Ala Val Arg	350	355	360
Ile Thr Pro Leu Lys Tyr Ala Gln Ile Cys Tyr Trp Ile Lys Gly	365	370	375
Asn Tyr Leu Asp Cys Arg Glu Gly	380		

<210> 262  
 <211> 1378  
 <212> DNA  
 <213> Homo Sapien

<400> 262  
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ataggtattt gtaaccctgc ccacatatct tatttattcc tccaatttca 1350  
ataaattatt tattctcaa aaaaaaaaa 1378

<210> 263  
<211> 317  
<212> PRT  
<213> Homo Sapien

<400> 263

Met	Val	Val	Ser	Gly	Ala	Pro	Pro	Ala	Leu	Gly	Gly	Gly	Cys	Leu
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Gly	Thr	Phe	Thr	Ser	Leu	Leu	Leu	Leu	Ala	Ser	Thr	Ala	Ile	Leu
				20					25					30
Asn	Ala	Ala	Arg	Ile	Pro	Val	Pro	Pro	Ala	Cys	Gly	Lys	Pro	Gln
				35					40					45
Gln	Leu	Asn	Arg	Val	Val	Gly	Gly	Glu	Asp	Ser	Thr	Asp	Ser	Glu
				50					55					60
Trp	Pro	Trp	Ile	Val	Ser	Ile	Gln	Lys	Asn	Gly	Thr	His	His	Cys
				65					70					75

Ala Gly Ser Leu	Leu Thr Ser Arg Trp	Val Ile Thr Ala Ala His
80	85	90
Cys Phe Lys Asp	Asn Leu Asn Lys Pro	Tyr Leu Phe Ser Val Leu
95	100	105
Leu Gly Ala Trp	Gln Leu Gly Asn Pro	Gly Ser Arg Ser Gln Lys
110	115	120
Val Gly Val Ala	Trp Val Glu Pro His	Pro Val Tyr Ser Trp Lys
125	130	135
Glu Gly Ala Cys	Ala Asp Ile Ala Leu	Val Arg Leu Glu Arg Ser
140	145	150
Ile Gln Phe Ser	Glu Arg Val Leu Pro	Ile Cys Leu Pro Asp Ala
155	160	165
Ser Ile His Leu	Pro Pro Asn Thr His	Cys Trp Ile Ser Gly Trp
170	175	180
Gly Ser Ile Gln	Asp Gly Val Pro Leu	Pro His Pro Gln Thr Leu
185	190	195
Gln Lys Leu Lys	Val Pro Ile Ile Asp	Ser Glu Val Cys Ser His
200	205	210
Leu Tyr Trp Arg	Gly Ala Gly Gln Gly	Pro Ile Thr Glu Asp Met
215	220	225
Leu Cys Ala Gly	Tyr Leu Glu Gly Glu	Arg Asp Ala Cys Leu Gly
230	235	240
Asp Ser Gly Gly	Pro Leu Met Cys Gln	Val Asp Gly Ala Trp Leu
245	250	255
Leu Ala Gly Ile	Ile Ser Trp Gly Glu	Gly Cys Ala Glu Arg Asn
260	265	270
Arg Pro Gly Val	Tyr Ile Ser Leu Ser	Ala His Arg Ser Trp Val
275	280	285
Glu Lys Ile Val	Gln Gly Val Gln Leu	Arg Gly Arg Ala Gln Gly
290	295	300
Gly Gly Ala Leu	Arg Ala Pro Ser Gln	Gly Ser Gly Ala Ala Ala
305	310	315

Arg Ser

<210> 264

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 264

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<210> 265

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 265

gcagaggtgt ctaaggttg 19

<210> 266

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 266

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<210> 267

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<212> DNA

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<210> 268

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 268

ggggaattca ccctatgaca ttgcc 25

<210> 269

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 269  
gaatgccctg caagcatcaa ctgg 24

<210> 270  
<211> 50  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 270  
gcacctgtca cctacactaa acacatccag cccatctgtc tccaggcctc 50

<210> 271  
<211> 26  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 271  
gcggaagggc agaatgggac tccaag 26

<210> 272  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 272  
cagccctgcc acatgtgc 18

<210> 273  
<211> 18  
<212> DNA  
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<220>  
<223> Synthetic Oligonucleotide Probe

<400> 273  
tactgggtgg tcagcaac 18

<210> 274  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 274  
ggcgaagagc agggtgagac cccg 24

<210> 275

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 275

gccctcatcc tctctggcaa atgcagttac agcccggagc ccgac 45

<210> 276

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 276

gggcagggat tccagggctc c 21

<210> 277

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 277

ggctatgaca gcaggttc 18

<210> 278

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 278

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<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 279

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<210> 280  
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<212> DNA  
<213> Artificial Sequence

<220>  
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<400> 280  
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<210> 281  
<211> 34  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 281  
cgtctcgagc gctccatata gttcccttgc ccca 34

<210> 282  
<211> 61  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 282  
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tgccaggtgg a 61

<210> 283  
<211> 119  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 283  
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gcagccatct gtactggcgg ggagcaggac agggacccat cactgaggac 100  
  
atgctgtgtg ccggctact 119

<210> 284  
<211> 1875  
<212> DNA  
<213> Homo Sapien

<400> 284  
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<210> 285

<211> 463

<212> PRT

<213> Homo Sapien

<400> 285

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Glu	Glu	Lys	Arg	Leu	Met	Val	Glu	Leu	His	Asn	Leu	Tyr	Arg	Ala	35	40	45	
Gln	Val	Ser	Pro	Thr	Ala	Ser	Asp	Met	Leu	His	Met	Arg	Trp	Asp	50	55	60	
Glu	Glu	Leu	Ala	Ala	Phe	Ala	Lys	Ala	Tyr	Ala	Arg	Gln	Cys	Val	65	70	75	
Trp	Gly	His	Asn	Lys	Glu	Arg	Gly	Arg	Arg	Gly	Glu	Asn	Leu	Phe	80	85	90	
Ala	Ile	Thr	Asp	Glu	Gly	Met	Asp	Val	Pro	Leu	Ala	Met	Glu	Glu	95	100	105	
Trp	His	His	Glu	Arg	Glu	His	Tyr	Asn	Leu	Ser	Ala	Ala	Thr	Cys	110	115	120	
Ser	Pro	Gly	Gln	Met	Cys	Gly	His	Tyr	Thr	Gln	Val	Val	Trp	Ala	125	130	135	
Lys	Thr	Glu	Arg	Ile	Gly	Cys	Gly	Ser	His	Phe	Cys	Glu	Lys	Leu	140	145	150	
Gln	Gly	Val	Glu	Glu	Thr	Asn	Ile	Glu	Leu	Leu	Val	Cys	Asn	Tyr	155	160	165	

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Thr	Pro	Cys	Ser	Gln 185	Cys	Pro	Ser	Gly	Tyr 190	His	Cys	Lys	Asn	Ser 195
Leu	Cys	Glu	Pro	Ile 200	Gly	Ser	Pro	Glu	Asp 205	Ala	Gln	Asp	Leu	Pro 210
Tyr	Leu	Val	Thr	Glu 215	Ala	Pro	Ser	Phe	Arg 220	Ala	Thr	Glu	Ala	Ser 225
Asp	Ser	Arg	Lys	Met 230	Gly	Thr	Pro	Ser	Ser 235	Leu	Ala	Thr	Gly	Ile 240
Pro	Ala	Phe	Leu	Val 245	Thr	Glu	Val	Ser	Gly 250	Ser	Leu	Ala	Thr	Lys 255
Ala	Leu	Pro	Ala	Val 260	Glu	Thr	Gln	Ala	Pro 265	Thr	Ser	Leu	Ala	Thr 270
Lys	Asp	Pro	Pro	Ser 275	Met	Ala	Thr	Glu	Ala 280	Pro	Pro	Cys	Val	Thr 285
Thr	Glu	Val	Pro	Ser 290	Ile	Leu	Ala	Ala	His 295	Ser	Leu	Pro	Ser	Leu 300
Asp	Glu	Glu	Pro	Val 305	Thr	Phe	Pro	Lys	Ser 310	Thr	His	Val	Pro	Ile 315
Pro	Lys	Ser	Ala	Asp 320	Lys	Val	Thr	Asp	Lys 325	Thr	Lys	Val	Pro	Ser 330
Arg	Ser	Pro	Glu	Asn 335	Ser	Leu	Asp	Pro	Lys 340	Met	Ser	Leu	Thr	Gly 345
Ala	Arg	Glu	Leu	Leu 350	Pro	His	Ala	Gln	Glu 355	Glu	Ala	Glu	Ala	Glu 360
Ala	Glu	Leu	Pro	Pro 365	Ser	Ser	Glu	Val	Leu 370	Ala	Ser	Val	Phe	Pro 375
Ala	Gln	Asp	Lys	Pro 380	Gly	Glu	Leu	Gln	Ala 385	Thr	Leu	Asp	His	Thr 390
Gly	His	Thr	Ser	Ser 395	Lys	Ser	Leu	Pro	Asn 400	Phe	Pro	Asn	Thr	Ser 405
Ala	Thr	Ala	Asn	Ala 410	Thr	Gly	Gly	Arg	Ala 415	Leu	Ala	Leu	Gln	Ser 420
Ser	Leu	Pro	Gly	Ala 425	Glu	Gly	Pro	Asp	Lys 430	Pro	Ser	Val	Val	Ser 435
Gly	Leu	Asn	Ser	Gly 440	Pro	Gly	His	Val	Trp 445	Gly	Pro	Leu	Leu	Gly 450

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<210> 289  
<211> 3662  
<212> DNA  
<213> Homo Sapien

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 <211> 1059  
 <212> PRT  
 <213> Homo Sapien

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 Ala Ser Ser Met Ser His Leu Gln Ser Leu Arg Glu Val Lys Leu  
 35 40 45  
 Asn Asn Asn Glu Leu Glu Thr Ile Pro Asn Leu Gly Pro Val Ser  
 50 55 60  
 Ala Asn Ile Thr Leu Leu Ser Leu Ala Gly Asn Arg Ile Val Glu  
 65 70 75  
 Ile Leu Pro Glu His Leu Lys Glu Phe Gln Ser Leu Glu Thr Leu  
 80 85 90  
 Asp Leu Ser Ser Asn Asn Ile Ser Glu Leu Gln Thr Ala Phe Pro  
 95 100 105  
 Ala Leu Gln Leu Lys Tyr Leu Tyr Leu Asn Ser Asn Arg Val Thr  
 110 115 120  
 Ser Met Glu Pro Gly Tyr Phe Asp Asn Leu Ala Asn Thr Leu Leu  
 125 130 135  
 Val Leu Lys Leu Asn Arg Asn Arg Ile Ser Ala Ile Pro Pro Lys  
 140 145 150  
 Met Phe Lys Leu Pro Gln Leu Gln His Leu Glu Leu Asn Arg Asn

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Lys Ile Lys Asn Val Asp Gly Leu Thr Phe Gln Gly Leu Gly Ala	170		175		180
Leu Lys Ser Leu Lys Met Gln Arg Asn Gly Val Thr Lys Leu Met	185		190		195
Asp Gly Ala Phe Trp Gly Leu Ser Asn Met Glu Ile Leu Gln Leu	200		205		210
Asp His Asn Asn Leu Thr Glu Ile Thr Lys Gly Trp Leu Tyr Gly	215		220		225
Leu Leu Met Leu Gln Glu Leu His Leu Ser Gln Asn Ala Ile Asn	230		235		240
Arg Ile Ser Pro Asp Ala Trp Glu Phe Cys Gln Lys Leu Ser Glu	245		250		255
Leu Asp Leu Thr Phe Asn His Leu Ser Arg Leu Asp Asp Ser Ser	260		265		270
Phe Leu Gly Leu Ser Leu Leu Asn Thr Leu His Ile Gly Asn Asn	275		280		285
Arg Val Ser Tyr Ile Ala Asp Cys Ala Phe Arg Gly Leu Ser Ser	290		295		300
Leu Lys Thr Leu Asp Leu Lys Asn Asn Glu Ile Ser Trp Thr Ile	305		310		315
Glu Asp Met Asn Gly Ala Phe Ser Gly Leu Asp Lys Leu Arg Arg	320		325		330
Leu Ile Leu Gln Gly Asn Arg Ile Arg Ser Ile Thr Lys Lys Ala	335		340		345
Phe Thr Gly Leu Asp Ala Leu Glu His Leu Asp Leu Ser Asp Asn	350		355		360
Ala Ile Met Ser Leu Gln Gly Asn Ala Phe Ser Gln Met Lys Lys	365		370		375
Leu Gln Gln Leu His Leu Asn Thr Ser Ser Leu Leu Cys Asp Cys	380		385		390
Gln Leu Lys Trp Leu Pro Gln Trp Val Ala Glu Asn Asn Phe Gln	395		400		405
Ser Phe Val Asn Ala Ser Cys Ala His Pro Gln Leu Leu Lys Gly	410		415		420
Arg Ser Ile Phe Ala Val Ser Pro Asp Gly Phe Val Cys Asp Asp	425		430		435
Phe Pro Lys Pro Gln Ile Thr Val Gln Pro Glu Thr Gln Ser Ala					



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Ser Asp Ser Pro Met Thr Phe Ala Trp	Lys Lys Asp Asn Glu Leu	
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Leu His Asp Ala Glu Met Glu Asn Tyr	Ala His Leu Arg Ala Gln	
485	490	495
Gly Gly Glu Val Met Glu Tyr Thr Thr	Ile Leu Arg Leu Arg Glu	
500	505	510
Val Glu Phe Ala Ser Glu Gly Lys Tyr	Gln Cys Val Ile Ser Asn	
515	520	525
His Phe Gly Ser Ser Tyr Ser Val Lys	Ala Lys Leu Thr Val Asn	
530	535	540
Met Leu Pro Ser Phe Thr Lys Thr Pro	Met Asp Leu Thr Ile Arg	
545	550	555
Ala Gly Ala Met Ala Arg Leu Glu Cys	Ala Ala Val Gly His Pro	
560	565	570
Ala Pro Gln Ile Ala Trp Gln Lys Asp	Gly Gly Thr Asp Phe Pro	
575	580	585
Ala Ala Arg Glu Arg Arg Met His Val	Met Pro Glu Asp Asp Val	
590	595	600
Phe Phe Ile Val Asp Val Lys Ile Glu	Asp Ile Gly Val Tyr Ser	
605	610	615
Cys Thr Ala Gln Asn Ser Ala Gly Ser	Ile Ser Ala Asn Ala Thr	
620	625	630
Leu Thr Val Leu Glu Thr Pro Ser Phe	Leu Arg Pro Leu Leu Asp	
635	640	645
Arg Thr Val Thr Lys Gly Glu Thr Ala	Val Leu Gln Cys Ile Ala	
650	655	660
Gly Gly Ser Pro Pro Pro Lys Leu Asn	Trp Thr Lys Asp Asp Ser	
665	670	675
Pro Leu Val Val Thr Glu Arg His Phe	Phe Ala Ala Gly Asn Gln	
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Leu Leu Ile Ile Val Asp Ser Asp Val	Ser Asp Ala Gly Lys Tyr	
695	700	705
Thr Cys Glu Met Ser Asn Thr Leu Gly	Thr Glu Arg Gly Asn Val	
710	715	720

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				740					745					750	
Val	Ile	Ile	Ala	Val	Val	Cys	Cys	Val	Val	Gly	Thr	Ser	Leu	Val	
				755					760					765	
Trp	Val	Val	Ile	Ile	Tyr	His	Thr	Arg	Arg	Arg	Asn	Glu	Asp	Cys	
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Ser	Ile	Thr	Asn	Thr	Asp	Glu	Thr	Asn	Leu	Pro	Ala	Asp	Ile	Pro	
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Ser	Tyr	Leu	Ser	Ser	Gln	Gly	Thr	Leu	Ala	Asp	Arg	Gln	Asp	Gly	
				800					805					810	
Tyr	Val	Ser	Ser	Glu	Ser	Gly	Ser	His	His	Gln	Phe	Val	Thr	Ser	
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Ser	Gly	Ala	Gly	Phe	Phe	Leu	Pro	Gln	His	Asp	Ser	Ser	Gly	Thr	
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Cys	His	Ile	Asp	Asn	Ser	Ser	Glu	Ala	Asp	Val	Glu	Ala	Ala	Thr	
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Asp	Leu	Phe	Leu	Cys	Pro	Phe	Leu	Gly	Ser	Thr	Gly	Pro	Met	Tyr	
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Leu	Lys	Gly	Asn	Val	Tyr	Gly	Ser	Asp	Pro	Phe	Glu	Thr	Tyr	His	
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Thr	Gly	Cys	Ser	Pro	Asp	Pro	Arg	Thr	Val	Leu	Met	Asp	His	Tyr	
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Glu	Pro	Ser	Tyr	Ile	Lys	Lys	Lys	Glu	Cys	Tyr	Pro	Cys	Ser	His	
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Pro	Ser	Glu	Glu	Ser	Cys	Glu	Arg	Ser	Phe	Ser	Asn	Ile	Ser	Trp	
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Pro	Ser	His	Val	Arg	Lys	Leu	Leu	Asn	Thr	Ser	Tyr	Ser	His	Asn	
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Glu	Gly	Pro	Gly	Met	Lys	Asn	Leu	Cys	Leu	Asn	Lys	Ser	Ser	Leu	
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Asp	Phe	Ser	Ala	Asn	Pro	Glu	Pro	Ala	Ser	Val	Ala	Ser	Ser	Asn	
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Ser	Phe	Met	Gly	Thr	Phe	Gly	Lys	Ala	Leu	Arg	Arg	Pro	His	Leu	
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Asp	Ala	Tyr	Ser	Ser	Phe	Gly	Gln	Pro	Ser	Asp	Cys	Gln	Pro	Arg	
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Ser	Glu	Glu	Asp	Gly	Lys	Glu	Arg	Thr	Asp	Phe	Gln	Glu	Glu	Asn
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His	Ile	Cys	Thr	Phe	Lys	Gln	Thr	Leu	Glu	Asn	Tyr	Arg	Thr	Pro
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 <212> DNA  
 <213> Homo Sapien

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<211> 640

<212> PRT

<213> Homo Sapien

<400> 292

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Leu	Ala	Leu	Gln	Leu	Leu	Val	Val	Ala	Gly	Leu	Val	Arg	Ala	Gln
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Thr	Cys	Pro	Ser	Val	Cys	Ser	Cys	Ser	Asn	Gln	Phe	Ser	Lys	Val
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Ile	Cys	Val	Arg	Lys	Asn	Leu	Arg	Glu	Val	Pro	Asp	Gly	Ile	Ser
			65						70					75
Thr	Asn	Thr	Arg	Leu	Leu	Asn	Leu	His	Glu	Asn	Gln	Ile	Gln	Ile
			80						85					90
Ile	Lys	Val	Asn	Ser	Phe	Lys	His	Leu	Arg	His	Leu	Glu	Ile	Leu
			95						100					105
Gln	Leu	Ser	Arg	Asn	His	Ile	Arg	Thr	Ile	Glu	Ile	Gly	Ala	Phe
			110						115					120
Asn	Gly	Leu	Ala	Asn	Leu	Asn	Thr	Leu	Glu	Leu	Phe	Asp	Asn	Arg
			125						130					135
Leu	Thr	Thr	Ile	Pro	Asn	Gly	Ala	Phe	Val	Tyr	Leu	Ser	Lys	Leu

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Lys Glu Leu Trp	Leu Arg Asn Asn Pro	Ile Glu Ser Ile Pro	Ser		
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Tyr Ala Phe Asn	Arg Ile Pro Ser Leu	Arg Arg Leu Asp Leu	Gly		
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Glu Leu Lys Arg	Leu Ser Tyr Ile Ser	Glu Gly Ala Phe Glu	Gly		
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Leu Ser Asn Leu	Arg Tyr Leu Asn Leu	Ala Met Cys Asn Leu	Arg		
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Glu Ile Pro Asn	Leu Thr Pro Leu Ile	Lys Leu Asp Glu Leu	Asp		
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Leu Ser Gly Asn	His Leu Ser Ala Ile	Arg Pro Gly Ser Phe	Gln		
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Gly Leu Met His	Leu Gln Lys Leu Trp	Met Ile Gln Ser Gln	Ile		
	245		250		255
Gln Val Ile Glu	Arg Asn Ala Phe Asp	Asn Leu Gln Ser Leu	Val		
	260		265		270
Glu Ile Asn Leu	Ala His Asn Asn Leu	Thr Leu Leu Pro His	Asp		
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Leu Phe Thr Pro	Leu His His Leu Glu	Arg Ile His Leu His	His		
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Asn Pro Trp Asn	Cys Asn Cys Asp Ile	Leu Trp Leu Ser Trp	Trp		
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Ile Lys Asp Met	Ala Pro Ser Asn Thr	Ala Cys Cys Ala Arg	Cys		
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Asn Thr Pro Pro	Asn Leu Lys Gly Arg	Tyr Ile Gly Glu Leu	Asp		
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Gln Asn Tyr Phe	Thr Cys Tyr Ala Pro	Val Ile Val Glu Pro	Pro		
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Ala Asp Leu Asn	Val Thr Glu Gly Met	Ala Ala Glu Leu Lys	Cys		
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Arg Ala Ser Thr	Ser Leu Thr Ser Val	Ser Trp Ile Thr Pro	Asn		
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Gly Thr Val Met	Thr His Gly Ala Tyr	Lys Val Arg Ile Ala	Val		
	395		400		405
Leu Ser Asp Gly	Thr Leu Asn Phe Thr	Asn Val Thr Val Gln	Asp		
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455	460	465
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Val Val Asp Trp Glu Thr Thr Asn Val	Thr Thr Ser Leu Thr Pro	
485	490	495
Gln Ser Thr Arg Ser Thr Glu Lys Thr	Phe Thr Ile Pro Val Thr	
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Thr Lys Ile Ile Ile Gly Cys Phe Val	Ala Ile Thr Leu Met Ala	
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575	580	585
Pro Met Pro Ala Ile Glu His Glu His	Leu Asn His Tyr Asn Ser	
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Tyr Lys Ser Pro Phe Asn His Thr Thr	Thr Val Asn Thr Ile Asn	
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<210> 293

<211> 4053

<212> DNA

<213> Homo Sapien

<400> 293

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 <212> PRT  
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<400> 294  
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 Gly Arg Gly Glu Leu Gly Gln Pro Ser Gly Val Ala Ala Glu Arg

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Ser	Arg	Lys	Arg	Leu	Ala	Arg	Leu	Pro	Glu	Pro	Leu	Pro	Ser	Trp			
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Val	Ala	Arg	Leu	Asp	Leu	Ser	His	Asn	Arg	Leu	Ser	Phe	Ile	Lys			
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Ala	Ser	Ser	Met	Ser	His	Leu	Gln	Ser	Leu	Arg	Glu	Val	Lys	Leu			
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Asn	Asn	Asn	Glu	Leu	Glu	Thr	Ile	Pro	Asn	Leu	Gly	Pro	Val	Ser			
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Ala	Asn	Ile	Thr	Leu	Leu	Ser	Leu	Ala	Gly	Asn	Arg	Ile	Val	Glu			
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Ile	Leu	Pro	Glu	His	Leu	Lys	Glu	Phe	Gln	Ser	Leu	Glu	Thr	Leu			
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Asp	Leu	Ser	Ser	Asn	Asn	Ile	Ser	Glu	Leu	Gln	Thr	Ala	Phe	Pro			
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Ala	Leu	Gln	Leu	Lys	Tyr	Leu	Tyr	Leu	Asn	Ser	Asn	Arg	Val	Thr			
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Ser	Met	Glu	Pro	Gly	Tyr	Phe	Asp	Asn	Leu	Ala	Asn	Thr	Leu	Leu			
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Val	Leu	Lys	Leu	Asn	Arg	Asn	Arg	Ile	Ser	Ala	Ile	Pro	Pro	Lys			
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Asp	His	Asn	Asn	Leu	Thr	Glu	Ile	Thr	Lys	Gly	Trp	Leu	Tyr	Gly			
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Leu	Leu	Met	Leu	Gln	Glu	Leu	His	Leu	Ser	Gln	Asn	Ala	Ile	Asn			
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Arg	Ile	Ser	Pro	Asp	Ala	Trp	Glu	Phe	Cys	Gln	Lys	Leu	Ser	Glu			
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Arg Val Ser Tyr Ile Ala Asp Cys Ala	Phe Arg Gly Leu Ser Ser	
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Glu Asp Met Asn Gly Ala Phe Ser Gly	Leu Asp Lys Leu Arg Arg	
380	385	390
Leu Ile Leu Gln Gly Asn Arg Ile Arg	Ser Ile Thr Lys Lys Ala	
395	400	405
Phe Thr Gly Leu Asp Ala Leu Glu His	Leu Asp Leu Ser Asp Asn	
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Ala Ile Met Ser Leu Gln Gly Asn Ala	Phe Ser Gln Met Lys Lys	
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Leu Gln Gln Leu His Leu Asn Thr Ser	Ser Leu Leu Cys Asp Cys	
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Gln Leu Lys Trp Leu Pro Gln Trp Val	Ala Glu Asn Asn Phe Gln	
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Ser Phe Val Asn Ala Ser Cys Ala His	Pro Gln Leu Leu Lys Gly	
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Arg Ser Ile Phe Ala Val Ser Pro Asp	Gly Phe Val Cys Asp Asp	
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Phe Pro Lys Pro Gln Ile Thr Val Gln	Pro Glu Thr Gln Ser Ala	
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Ile Lys Gly Ser Asn Leu Ser Phe Ile	Cys Ser Ala Ala Ser Ser	
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Ser Asp Ser Pro Met Thr Phe Ala Trp	Lys Lys Asp Asn Glu Leu	
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Leu His Asp Ala Glu Met Glu Asn Tyr	Ala His Leu Arg Ala Gln	
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Gly Gly Glu Val Met Glu Tyr Thr Thr	Ile Leu Arg Leu Arg Glu	
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Val Glu Phe Ala Ser Glu Gly Lys Tyr	Gln Cys Val Ile Ser Asn	
575	580	585
His Phe Gly Ser Ser Tyr Ser Val Lys	Ala Lys Leu Thr Val Asn	
590	595	600
Met Leu Pro Ser Phe Thr Lys Thr Pro	Met Asp Leu Thr Ile Arg	

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Ala	Pro	Gln	Ile	Ala	Trp	Gln	Lys	Asp	Gly	Gly	Thr	Asp	Phe	Pro
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Phe	Phe	Ile	Val	Asp	Val	Lys	Ile	Glu	Asp	Ile	Gly	Val	Tyr	Ser
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Cys	Thr	Ala	Gln	Asn	Ser	Ala	Gly	Ser	Ile	Ser	Ala	Asn	Ala	Thr
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Tyr	Val	Ser	Ser	Glu	Ser	Gly	Ser	His	His	Gln	Phe	Val	Thr	Ser
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Ser	Gly	Ala	Gly	Phe	Phe	Leu	Pro	Gln	His	Asp	Ser	Ser	Gly	Thr

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Cys His Ile Asp Asn Ser Ser Glu Ala	Asp Val Glu Ala Ala	Thr
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Asp Leu Phe Leu Cys Pro Phe Leu Gly	Ser Thr Gly Pro Met	Tyr
920	925	930
Leu Lys Gly Asn Val Tyr Gly Ser Asp	Pro Phe Glu Thr Tyr	His
935	940	945
Thr Gly Cys Ser Pro Asp Pro Arg Thr	Val Leu Met Asp His	Tyr
950	955	960
Glu Pro Ser Tyr Ile Lys Lys Lys Glu	Cys Tyr Pro Cys Ser	His
965	970	975
Pro Ser Glu Glu Ser Cys Glu Arg Ser	Phe Ser Asn Ile Ser	Trp
980	985	990
Pro Ser His Val Arg Lys Leu Leu Asn	Thr Ser Tyr Ser His	Asn
995	1000	1005
Glu Gly Pro Gly Met Lys Asn Leu Cys	Leu Asn Lys Ser Ser	Leu
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Asp Phe Ser Ala Asn Pro Glu Pro Ala	Ser Val Ala Ser Ser	Asn
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Ser Phe Met Gly Thr Phe Gly Lys Ala	Leu Arg Arg Pro His	Leu
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Asp Ala Tyr Ser Ser Phe Gly Gln Pro	Ser Asp Cys Gln Pro	Arg
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Ala Phe Tyr Leu Lys Ala His Ser Ser	Pro Asp Leu Asp Ser	Gly
1070	1075	1080
Ser Glu Glu Asp Gly Lys Glu Arg Thr	Asp Phe Gln Glu Glu	Asn
1085	1090	1095
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<210> 308  
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<210> 309  
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<210> 310  
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<213> Homo Sapien

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<210> 312  
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<223> Synthetic Oligonucleotide Probe

<400> 312  
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<210> 313  
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<220>  
<223> Synthetic Oligonucleotide Probe

<400> 313  
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<210> 314  
<211> 3003  
<212> DNA  
<213> Homo Sapien

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 <211> 509  
 <212> PRT  
 <213> Homo Sapien

<400> 315

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Ser	Ser	Ile	Gly	Leu	Cys	Arg	Tyr	Gly	Gly	Arg	Ile	Asp	Cys	Cys	35	40	45	
Trp	Gly	Trp	Ala	Arg	Gln	Ser	Trp	Gly	Gln	Cys	Gln	Pro	Val	Cys	50	55	60	
Gln	Pro	Arg	Cys	Lys	His	Gly	Glu	Cys	Ile	Gly	Pro	Asn	Lys	Cys	65	70	75	
Lys	Cys	His	Pro	Gly	Tyr	Ala	Gly	Lys	Thr	Cys	Asn	Gln	Asp	Leu	80	85	90	
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Ala	Asn	Cys	Gln	Tyr	Gly	Cys	Asp	Val	Val	Lys	Gly	Gln	Ile	Arg	140	145	150	
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Thr	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Thr	Gly	Arg	Ala	Ser	Cys	170	175	180	
Pro	Arg	Phe	Arg	Gln	Cys	Val	Asn	Thr	Phe	Gly	Ser	Tyr	Ile	Cys	185	190	195	
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Thr Asp Pro Gln	Lys	Pro Arg Gly Asp	Val	Phe Ser Val Leu	Val
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Lys Asp Asn Asp	Leu	His Trp Glu Pro	Ile	Arg Asp Pro Ala	Gly
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Gly Gln Tyr Leu	Thr	Val Ser Ala Ala	Lys	Ala Pro Gly Gly	Lys
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	455		460		465
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	470		475		480
Ala Leu Trp Gly	Arg	Asn Gly Gly His	Gly	Trp Arg Gln Thr	Gln
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 <212> DNA



<213> Artificial Sequence

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<223> Synthetic Oligonucleotide Probe

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<210> 317

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 317

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<210> 318

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 318

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<210> 319

<211> 2110

<212> DNA

<213> Homo Sapien

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<210> 320  
<211> 450  
<212> PRT  
<213> Homo Sapien

<400> 320

Met	Trp	Leu	Lys	Val	Phe	Thr	Thr	Phe	Leu	Ser	Phe	Ala	Thr	Gly	1	5	10	15
Ala	Cys	Ser	Gly	Leu	Lys	Val	Thr	Val	Pro	Ser	His	Thr	Val	His	20	25	30	
Gly	Val	Arg	Gly	Gln	Ala	Leu	Tyr	Leu	Pro	Val	His	Tyr	Gly	Phe	35	40	45	
His	Thr	Pro	Ala	Ser	Asp	Ile	Gln	Ile	Ile	Trp	Leu	Phe	Glu	Arg	50	55	60	
Pro	His	Thr	Met	Pro	Lys	Tyr	Leu	Leu	Gly	Ser	Val	Asn	Lys	Ser	65	70	75	
Val	Val	Pro	Asp	Leu	Glu	Tyr	Gln	His	Lys	Phe	Thr	Met	Met	Pro	80	85	90	
Pro	Asn	Ala	Ser	Leu	Leu	Ile	Asn	Pro	Leu	Gln	Phe	Pro	Asp	Glu	95	100	105	
Gly	Asn	Tyr	Ile	Val	Lys	Val	Asn	Ile	Gln	Gly	Asn	Gly	Thr	Leu	110	115	120	
Ser	Ala	Ser	Gln	Lys	Ile	Gln	Val	Thr	Val	Asp	Asp	Pro	Val	Thr	125	130	135	
Lys	Pro	Val	Val	Gln	Ile	His	Pro	Pro	Ser	Gly	Ala	Val	Glu	Tyr	140	145	150	
Val	Gly	Asn	Met	Thr	Leu	Thr	Cys	His	Val	Glu	Gly	Gly	Thr	Arg	155	160	165	
Leu	Ala	Tyr	Gln	Trp	Leu	Lys	Asn	Gly	Arg	Pro	Val	His	Thr	Ser	170	175	180	
Ser	Thr	Tyr	Ser	Phe	Ser	Pro	Gln	Asn	Asn	Thr	Leu	His	Ile	Ala	185	190	195	
Pro	Val	Thr	Lys	Glu	Asp	Ile	Gly	Asn	Tyr	Ser	Cys	Leu	Val	Arg	200	205	210	
Asn	Pro	Val	Ser	Glu	Met	Glu	Ser	Asp	Ile	Ile	Met	Pro	Ile	Ile				

215					220					225				
Tyr	Tyr	Gly	Pro	Tyr	Gly	Leu	Gln	Val	Asn	Ser	Asp	Lys	Gly	Leu
				230					235					240
Lys	Val	Gly	Glu	Val	Phe	Thr	Val	Asp	Leu	Gly	Glu	Ala	Ile	Leu
				245					250					255
Phe	Asp	Cys	Ser	Ala	Asp	Ser	His	Pro	Pro	Asn	Thr	Tyr	Ser	Trp
				260					265					270
Ile	Arg	Arg	Thr	Asp	Asn	Thr	Thr	Tyr	Ile	Ile	Lys	His	Gly	Pro
				275					280					285
Arg	Leu	Glu	Val	Ala	Ser	Glu	Lys	Val	Ala	Gln	Lys	Thr	Met	Asp
				290					295					300
Tyr	Val	Cys	Cys	Ala	Tyr	Asn	Asn	Ile	Thr	Gly	Arg	Gln	Asp	Glu
				305					310					315
Thr	His	Phe	Thr	Val	Ile	Ile	Thr	Ser	Val	Gly	Leu	Glu	Lys	Leu
				320					325					330
Ala	Gln	Lys	Gly	Lys	Ser	Leu	Ser	Pro	Leu	Ala	Ser	Ile	Thr	Gly
				335					340					345
Ile	Ser	Leu	Phe	Leu	Ile	Ile	Ser	Met	Cys	Leu	Leu	Phe	Leu	Trp
				350					355					360
Lys	Lys	Tyr	Gln	Pro	Tyr	Lys	Val	Ile	Lys	Gln	Lys	Leu	Glu	Gly
				365					370					375
Arg	Pro	Glu	Thr	Glu	Tyr	Arg	Lys	Ala	Gln	Thr	Phe	Ser	Gly	His
				380					385					390
Glu	Asp	Ala	Leu	Asp	Asp	Phe	Gly	Ile	Tyr	Glu	Phe	Val	Ala	Phe
				395					400					405
Pro	Asp	Val	Ser	Gly	Val	Ser	Arg	Ile	Pro	Ser	Arg	Ser	Val	Pro
				410					415					420
Ala	Ser	Asp	Cys	Val	Ser	Gly	Gln	Asp	Leu	His	Ser	Thr	Val	Tyr
				425					430					435
Glu	Val	Ile	Gln	His	Ile	Pro	Ala	Gln	Gln	Gln	Asp	His	Pro	Glu
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<210> 321

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 321

gatcctgtca caaagccagt ggtgc 25

<210> 322

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 322

cactgacagg gttcctcacc cagg 24

<210> 323

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 323

ctccctctgg gctgtggagt atgtggggaa catgaccctg acatg 45

<210> 324

<211> 2397

<212> DNA

<213> Homo Sapien

<400> 324

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acgttcgcgt catcacggac gagaactgga gagaactgct ggaaggagac 150  
tggatgatag aattttatgc cccgtgggtgc cctgcttgtc aaaatcttca 200  
accggaatgg gaaagttttg ctgaatgggg agaagatctt gaggttaata 250  
ttgcgaaagt agatgtcaca gacgagccag gactgagtgg acggtttatc 300  
ataactgctc ttcctactat ttatcattgt aaagatgggt aatttaggcg 350  
ctatcagggg ccaaggacta agaaggactt cataaacttt ataagtgata 400  
aagagtggaa gagtattgag cccgtttcat catggtttgg tccaggttct 450  
gttctgatga gtagtatgtc agcactcttt cagctatcta tgtggatcag 500  
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catatactgt ttttgcttta gcaactctgt tttccggact gttattagga 600  
ctctgtatga tatttgtggc agattgcctt tgtccttcaa aaaggcgcag 650  
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aacctttgaa aaaagtggag gaggaacaag aggcggatga agaagatggt 750  
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gaatgccata agacaacgct ctctgggtcc atcattggcc acagataaat 850  
cctagttaaa ttttatagtt atcttaatat tatgattttg ataaaaacag 900  
aagattgac attttgtttg gtttgaagt aactgtgact tttttgaata 950  
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acataaaagc actaggtata caagtttgaa atatgattta agcacagtat 1050  
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 ttcttttaaag ccctctcctt tagaatttaa aatattgtac cattaaagag 2300  
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<210> 325

<211> 280

<212> PRT

<213> Homo Sapien

<400> 325

Met	Ala	Pro	Ser	Gly	Ser	Leu	Ala	Val	Pro	Leu	Ala	Val	Leu	Val	1	5	10	15
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Val	Arg	Val	Ile	Thr	Asp	Glu	Asn	Trp	Arg	Glu	Leu	Leu	Glu	Gly	35	40	45	
Asp	Trp	Met	Ile	Glu	Phe	Tyr	Ala	Pro	Trp	Cys	Pro	Ala	Cys	Gln	50	55	60	
Asn	Leu	Gln	Pro	Glu	Trp	Glu	Ser	Phe	Ala	Glu	Trp	Gly	Glu	Asp	65	70	75	
Leu	Glu	Val	Asn	Ile	Ala	Lys	Val	Asp	Val	Thr	Glu	Gln	Pro	Gly	80	85	90	
Leu	Ser	Gly	Arg	Phe	Ile	Ile	Thr	Ala	Leu	Pro	Thr	Ile	Tyr	His	95	100	105	
Cys	Lys	Asp	Gly	Glu	Phe	Arg	Arg	Tyr	Gln	Gly	Pro	Arg	Thr	Lys	110	115	120	
Lys	Asp	Phe	Ile	Asn	Phe	Ile	Ser	Asp	Lys	Glu	Trp	Lys	Ser	Ile	125	130	135	
Glu	Pro	Val	Ser	Ser	Trp	Phe	Gly	Pro	Gly	Ser	Val	Leu	Met	Ser	140	145	150	
Ser	Met	Ser	Ala	Leu	Phe	Gln	Leu	Ser	Met	Trp	Ile	Arg	Thr	Cys	155	160	165	
His	Asn	Tyr	Phe	Ile	Glu	Asp	Leu	Gly	Leu	Pro	Val	Trp	Gly	Ser	170	175	180	
Tyr	Thr	Val	Phe	Ala	Leu	Ala	Thr	Leu	Phe	Ser	Gly	Leu	Leu	Leu	185	190	195	

Gly Leu Cys Met Ile Phe Val Ala Asp Cys Leu Cys Pro Ser Lys  
200 205 210

Arg Arg Arg Pro Gln Pro Tyr Pro Tyr Pro Ser Lys Lys Leu Leu  
215 220 225

Ser Glu Ser Ala Gln Pro Leu Lys Lys Val Glu Glu Glu Gln Glu  
230 235 240

Ala Asp Glu Glu Asp Val Ser Glu Glu Glu Ala Glu Ser Lys Glu  
245 250 255

Gly Thr Asn Lys Asp Phe Pro Gln Asn Ala Ile Arg Gln Arg Ser  
260 265 270

Leu Gly Pro Ser Leu Ala Thr Asp Lys Ser  
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<210> 326

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 326

tgaggtgggc aagcggcgaa atg 23

<210> 327

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 327

tatgtggatc aggacgtgcc 20

<210> 328

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 328

tgcagggttc agtctagatt g 21

<210> 329

<211> 25

<212> DNA

<213> Artificial Sequence



<220>

<223> Synthetic Oligonucleotide Probe

<400> 329

ttgaaggaca aaggcaatct gccac 25

<210> 330

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 330

ggagtcttg gc agttcccctg gcagtcctgg tgctgttgct ttggg 45

<210> 331

<211> 2168

<212> DNA

<213> Homo Sapien

<400> 331

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acttccctct gtgaccatga aactctgggt gtctgcattg ctgatggcct 200

ggtttggtgt cctgagctgt gtgcaggccg aattcttcac ctctattggg 250

cacatgactg acctgattta tgcagagaaa gagctggtgc agtctctgaa 300

agagtacatc cttgtggagg aagccaagct ttccaagatt aagagctggg 350

ccaacaaaat ggaagccttg actagcaagt cagctgctga tgctgagggc 400

tacctggctc accctgtgaa tgcctacaaa ctggtgaagc ggctaaacac 450

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gagataggag ctgccaaagc cctgatgaga cttcaggaca catacaggct 600

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gaaggggact attatcatc ggtgtgtgtg atggagcagg tgctaaagca 750

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<210> 332

<211> 533

<212> PRT

<213> Homo Sapien

<400> 332

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Leu	Ser	Cys	Val	Gln	Ala	Glu	Phe	Phe	Thr	Ser	Ile	Gly	His	Met	
				20					25					30	
Thr	Asp	Leu	Ile	Tyr	Ala	Glu	Lys	Glu	Leu	Val	Gln	Ser	Leu	Lys	
				35					40					45	
Glu	Tyr	Ile	Leu	Val	Glu	Glu	Ala	Lys	Leu	Ser	Lys	Ile	Lys	Ser	
				50					55					60	
Trp	Ala	Asn	Lys	Met	Glu	Ala	Leu	Thr	Ser	Lys	Ser	Ala	Ala	Asp	
				65					70					75	
Ala	Glu	Gly	Tyr	Leu	Ala	His	Pro	Val	Asn	Ala	Tyr	Lys	Leu	Val	
				80					85					90	
Lys	Arg	Leu	Asn	Thr	Asp	Trp	Pro	Ala	Leu	Glu	Asp	Leu	Val	Leu	
				95					100					105	
Gln	Asp	Ser	Ala	Ala	Gly	Phe	Ile	Ala	Asn	Leu	Ser	Val	Gln	Arg	
				110					115					120	
Gln	Phe	Phe	Pro	Thr	Asp	Glu	Asp	Glu	Ile	Gly	Ala	Ala	Lys	Ala	
				125					130					135	
Leu	Met	Arg	Leu	Gln	Asp	Thr	Tyr	Arg	Leu	Asp	Pro	Gly	Thr	Ile	
				140					145					150	
Ser	Arg	Gly	Glu	Leu	Pro	Gly	Thr	Lys	Tyr	Gln	Ala	Met	Leu	Ser	
				155					160					165	
Val	Asp	Asp	Cys	Phe	Gly	Met	Gly	Arg	Ser	Ala	Tyr	Asn	Glu	Gly	
				170					175					180	
Asp	Tyr	Tyr	His	Thr	Val	Leu	Trp	Met	Glu	Gln	Val	Leu	Lys	Gln	
				185					190					195	
Leu	Asp	Ala	Gly	Glu	Glu	Ala	Thr	Thr	Thr	Lys	Ser	Gln	Val	Leu	
				200					205					210	
Asp	Tyr	Leu	Ser	Tyr	Ala	Val	Phe	Gln	Leu	Gly	Asp	Leu	His	Arg	
				215					220					225	
Ala	Leu	Glu	Leu	Thr	Arg	Arg	Leu	Leu	Ser	Leu	Asp	Pro	Ser	His	
				230					235					240	
Glu	Arg	Ala	Gly	Gly	Asn	Leu	Arg	Tyr	Phe	Glu	Gln	Leu	Leu	Glu	
				245					250					255	
Glu	Glu	Arg	Glu	Lys	Thr	Leu	Thr	Asn	Gln	Thr	Glu	Ala	Glu	Leu	
				260					265					270	

Ala Thr Pro Glu Gly Ile Tyr Glu Arg Pro Val Asp Tyr Leu Pro	275	280	285
Glu Arg Asp Val Tyr Glu Ser Leu Cys Arg Gly Glu Gly Val Lys	290	295	300
Leu Thr Pro Arg Arg Gln Lys Arg Leu Phe Cys Arg Tyr His His	305	310	315
Gly Asn Arg Ala Pro Gln Leu Leu Ile Ala Pro Phe Lys Glu Glu	320	325	330
Asp Glu Trp Asp Ser Pro His Ile Val Arg Tyr Tyr Asp Val Met	335	340	345
Ser Asp Glu Glu Ile Glu Arg Ile Lys Glu Ile Ala Lys Pro Lys	350	355	360
Leu Ala Arg Ala Thr Val Arg Asp Pro Lys Thr Gly Val Leu Thr	365	370	375
Val Ala Ser Tyr Arg Val Ser Lys Ser Ser Trp Leu Glu Glu Asp	380	385	390
Asp Asp Pro Val Val Ala Arg Val Asn Arg Arg Met Gln His Ile	395	400	405
Thr Gly Leu Thr Val Lys Thr Ala Glu Leu Leu Gln Val Ala Asn	410	415	420
Tyr Gly Val Gly Gly Gln Tyr Glu Pro His Phe Asp Phe Ser Arg	425	430	435
Arg Pro Phe Asp Ser Gly Leu Lys Thr Glu Gly Asn Arg Leu Ala	440	445	450
Thr Phe Leu Asn Tyr Met Ser Asp Val Glu Ala Gly Gly Ala Thr	455	460	465
Val Phe Pro Asp Leu Gly Ala Ala Ile Trp Pro Lys Lys Gly Thr	470	475	480
Ala Val Phe Trp Tyr Asn Leu Leu Arg Ser Gly Glu Gly Asp Tyr	485	490	495
Arg Thr Arg His Ala Ala Cys Pro Val Leu Val Gly Cys Lys Trp	500	505	510
Val Ser Asn Lys Trp Phe His Glu Arg Gly Gln Glu Phe Leu Arg	515	520	525
Pro Cys Gly Ser Thr Glu Val Asp	530		

<210> 333

<211> 18

<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 333  
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<210> 334  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 334  
ggacccttct gtgtgccag 19

<210> 335  
<211> 19  
<212> DNA  
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<220>  
<223> Synthetic Oligonucleotide Probe

<400> 335  
ggtctcaaga actcctgtc 19

<210> 336  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 336  
acactcagca ttgcctggta cttg 24

<210> 337  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 337  
gggcacatga ctgacctgat ttatgcagag aaagagctgg tgcag 45

<210> 338  
<211> 2789  
  
<212> DNA

<213> Homo Sapien

<400> 338

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<211> 772  
<212> PRT  
<213> Homo Sapien

<400> 339

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Val	Ser	Trp	Ile	Gln	Gly	Glu	Gly	Glu	Asp	Pro	Cys	Val	Glu	Ala
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Val	Gly	Glu	Arg	Gly	Gly	Pro	Gln	Asn	Pro	Asp	Ser	Arg	Ala	Arg
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Leu	Asp	Gln	Ser	Asp	Glu	Asp	Phe	Lys	Pro	Arg	Ile	Val	Pro	Tyr
				65					70					75
Tyr	Arg	Asp	Pro	Asn	Lys	Pro	Tyr	Lys	Lys	Val	Leu	Arg	Thr	Arg
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Tyr	Ile	Gln	Thr	Glu	Leu	Gly	Ser	Arg	Glu	Arg	Leu	Leu	Val	Ala
				95					100					105
Val	Leu	Thr	Ser	Arg	Ala	Thr	Leu	Ser	Thr	Leu	Ala	Val	Ala	Val
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Asn	Arg	Thr	Val	Ala	His	His	Phe	Pro	Arg	Leu	Leu	Tyr	Phe	Thr
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Gly	Gln	Arg	Gly	Ala	Arg	Ala	Pro	Ala	Gly	Met	Gln	Val	Val	Ser
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His	Gly	Asp	Glu	Arg	Pro	Ala	Trp	Leu	Met	Ser	Glu	Thr	Leu	Arg
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His	Leu	His	Thr	His	Phe	Gly	Ala	Asp	Tyr	Asp	Trp	Phe	Phe	Ile
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Met	Gln	Asp	Asp	Thr	Tyr	Val	Gln	Ala	Pro	Arg	Leu	Ala	Ala	Leu
				185					190					195
Ala	Gly	His	Leu	Ser	Ile	Asn	Gln	Asp	Leu	Tyr	Leu	Gly	Arg	Ala
				200					205					210
Glu	Glu	Phe	Ile	Gly	Ala	Gly	Glu	Gln	Ala	Arg	Tyr	Cys	His	Gly
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Gly	Phe	Gly	Tyr	Leu	Leu	Ser	Arg	Ser	Leu	Leu	Leu	Arg	Leu	Arg
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Pro	His	Leu	Asp	Gly	Cys	Arg	Gly	Asp	Ile	Leu	Ser	Ala	Arg	Pro
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Ala	Lys	Asn	Arg	Asp	Pro	Glu	Lys	Glu	Gly	Ser	Ser	Ala	Phe	Leu		290	295	300
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Pro	Ala	Pro	Phe	Thr	Pro	His	Ser	Arg	Phe	Glu	Val	Leu	Gly	Trp		365	370	375
Asp	Tyr	Phe	Thr	Glu	Gln	His	Thr	Phe	Ser	Cys	Ala	Asp	Gly	Ala		380	385	390
Pro	Lys	Cys	Pro	Leu	Gln	Gly	Ala	Ser	Arg	Ala	Asp	Val	Gly	Asp		395	400	405
Ala	Leu	Glu	Thr	Ala	Leu	Glu	Gln	Leu	Asn	Arg	Arg	Tyr	Gln	Pro		410	415	420
Arg	Leu	Arg	Phe	Gln	Lys	Gln	Arg	Leu	Leu	Asn	Gly	Tyr	Arg	Arg		425	430	435
Phe	Asp	Pro	Ala	Arg	Gly	Met	Glu	Tyr	Thr	Leu	Asp	Leu	Leu	Leu		440	445	450
Glu	Cys	Val	Thr	Gln	Arg	Gly	His	Arg	Arg	Ala	Leu	Ala	Arg	Arg		455	460	465
Val	Ser	Leu	Leu	Arg	Pro	Leu	Ser	Arg	Val	Glu	Ile	Leu	Pro	Met		470	475	480
Pro	Tyr	Val	Thr	Glu	Ala	Thr	Arg	Val	Gln	Leu	Val	Leu	Pro	Leu		485	490	495
Leu	Val	Ala	Glu	Ala	Ala	Ala	Ala	Pro	Ala	Phe	Leu	Glu	Ala	Phe		500	505	510
Ala	Ala	Asn	Val	Leu	Glu	Pro	Arg	Glu	His	Ala	Leu	Leu	Thr	Leu		515	520	525
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Tyr Pro Gly Thr Arg Leu Ala Trp Leu Ala Val Arg Ala Glu Ala  
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Pro Ser Gln Val Arg Leu Met Asp Val Val Ser Lys Lys His Pro  
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Val Asp Thr Leu Phe Phe Leu Thr Thr Val Trp Thr Arg Pro Gly  
590 595 600

Pro Glu Val Leu Asn Arg Cys Arg Met Asn Ala Ile Ser Gly Trp  
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Gln Ala Phe Phe Pro Val His Phe Gln Glu Phe Asn Pro Ala Leu  
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Ser Pro Gln Arg Ser Pro Pro Gly Pro Pro Gly Ala Gly Pro Asp  
635 640 645

Pro Pro Ser Pro Pro Gly Ala Asp Pro Ser Arg Gly Ala Pro Ile  
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Gly Gly Arg Phe Asp Arg Gln Ala Ser Ala Glu Gly Cys Phe Tyr  
665 670 675

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680 685 690

Ala Gly Gln Glu Glu Glu Glu Ala Leu Glu Gly Leu Glu Val Met  
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Asp Val Phe Leu Arg Phe Ser Gly Leu His Leu Phe Arg Ala Val  
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Glu Pro Gly Leu Val Gln Lys Phe Ser Leu Arg Asp Cys Ser Pro  
725 730 735

Arg Leu Ser Glu Glu Leu Tyr His Arg Cys Arg Leu Ser Asn Leu  
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<211> 1572

<212> DNA

<213> Homo Sapien

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<210> 341

<211> 318

<212> PRT

<213> Homo Sapien

<400> 341

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Gly	His	Gly	Asn	Arg	Met	His	His	His	Glu	His	His	His	Leu	Gln
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Ala	Pro	Asn	Lys	Glu	Asp	Ile	Leu	Lys	Ile	Ser	Glu	Asp	Glu	Arg
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Met	Glu	Leu	Ser	Lys	Ser	Phe	Arg	Val	Tyr	Cys	Ile	Ile	Leu	Val
				65					70					75

Lys	Pro	Lys	Asp	Val	Ser	Leu	Trp	Ala	Ala	Val	Lys	Glu	Thr	Trp
				80					85					90

Thr	Lys	His	Cys	Asp	Lys	Ala	Glu	Phe	Phe	Ser	Ser	Glu	Asn	Val
				95					100					105

Lys	Val	Phe	Glu	Ser	Ile	Asn	Met	Asp	Thr	Asn	Asp	Met	Trp	Leu
				110					115					120

Met	Met	Arg	Lys	Ala	Tyr	Lys	Tyr	Ala	Phe	Asp	Lys	Tyr	Arg	Asp
				125					130					135

Gln	Tyr	Asn	Trp	Phe	Phe	Leu	Ala	Arg	Pro	Thr	Thr	Phe	Ala	Ile
				140					145					150

Ile	Glu	Asn	Leu	Lys	Tyr	Phe	Leu	Leu	Lys	Lys	Asp	Pro	Ser	Gln
				155					160					165

Pro	Phe	Tyr	Leu	Gly	His	Thr	Ile	Lys	Ser	Gly	Asp	Leu	Glu	Tyr
				170					175					180

Val	Gly	Met	Glu	Gly	Gly	Ile	Val	Leu	Ser	Val	Glu	Ser	Met	Lys
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Arg	Leu	Asn	Ser	Leu	Leu	Asn	Ile	Pro	Glu	Lys	Cys	Pro	Glu	Gln
				200					205					210

Gly	Gly	Met	Ile	Trp	Lys	Ile	Ser	Glu	Asp	Lys	Gln	Leu	Ala	Val
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Cys Leu Lys Tyr Ala Gly Val Phe Ala Glu Asn Ala Glu Asp Ala

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Asp Gly Lys Asp	Val Phe Asn Thr Lys	Ser Val Gly Leu Ser	Ile
	245	250	255
Lys Glu Ala Met	Thr Tyr His Pro Asn	Gln Val Val Glu Gly	Cys
	260	265	270
Cys Ser Asp Met	Ala Val Thr Phe Asn	Gly Leu Thr Pro Asn	Gln
	275	280	285
Met His Val Met	Met Tyr Gly Val Tyr	Arg Leu Arg Ala Phe	Gly
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<213> Artificial Sequence

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<223> Synthetic Oligonucleotide Probe

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<213> Artificial Sequence

<220>

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<400> 343

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<210> 344

<211> 28

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<223> Synthetic Oligonucleotide Probe  
  
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<210> 353

<211> 48

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<213> Artificial Sequence

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<400> 353

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<210> 354

<211> 48

<212> DNA

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<210> 355

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<211> 46  
<212> DNA  
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<210> 357  
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<220>  
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<400> 357  
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<210> 359  
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<210> 368  
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<210> 372  
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<210> 376  
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<400> 376

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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa 997

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<211> 219

<212> PRT

<213> Homo Sapien

<400> 377

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				20					25					30
Ile	Leu	Phe	Leu	Ser	Ala	Cys	Phe	Ile	Thr	Arg	Cys	Val	Val	Thr
				35					40					45

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Glu Asn Phe Thr Glu Leu Ser Cys Tyr Asn Tyr Gly Ser Gly Ser  
65 70 75

Val Lys Asn Cys Cys Pro Leu Asn Trp Glu Tyr Phe Gln Ser Ser  
80 85 90

Cys Tyr Phe Phe Ser Thr Asp Thr Ile Ser Trp Ala Leu Ser Leu  
95 100 105

Lys Asn Cys Ser Ala Met Gly Ala His Leu Val Val Ile Asn Ser  
110 115 120

Gln Glu Glu Gln Glu Phe Leu Ser Tyr Lys Lys Pro Lys Met Arg  
125 130 135

Glu Phe Phe Ile Gly Leu Ser Asp Gln Val Val Glu Gly Gln Trp  
140 145 150

Gln Trp Val Asp Gly Thr Pro Leu Thr Lys Ser Leu Ser Phe Trp  
155 160 165

Asp Val Gly Glu Pro Asn Asn Ile Ala Thr Leu Glu Asp Cys Ala  
170 175 180

Thr Met Arg Asp Ser Ser Asn Pro Arg Gln Asn Trp Asn Asp Val  
185 190 195

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gccaaggggtg gtgttagata gg 22

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<212> DNA

<213> Artificial Sequence

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<210> 422  
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Ser	Asp	Pro	Arg	Ile	Glu	Trp	Lys	Lys	Ile	Gln	Asp	Glu	Gln	Thr	65	70	75
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Arg	Ala	Glu	Ile	Leu	Gly	Lys	Thr	Ser	Leu	Lys	Ile	Trp	Asn	Val	95	100	105
Thr	Arg	Arg	Asp	Ser	Ala	Leu	Tyr	Arg	Cys	Glu	Val	Val	Ala	Arg	110	115	120
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Gln	Val	Lys	Pro	Val	Thr	Pro	Val	Cys	Arg	Val	Pro	Lys	Ala	Val	140	145	150
Pro	Val	Gly	Lys	Met	Ala	Thr	Leu	His	Cys	Gln	Glu	Ser	Glu	Gly	155	160	165
His	Pro	Arg	Pro	His	Tyr	Ser	Trp	Tyr	Arg	Asn	Asp	Val	Pro	Leu	170	175	180
Pro	Thr	Asp	Ser	Arg	Ala	Asn	Pro	Arg	Phe	Arg	Asn	Ser	Ser	Phe	185	190	195
His	Leu	Asn	Ser	Glu	Thr	Gly	Thr	Leu	Val	Phe	Thr	Ala	Val	His	200	205	210
Lys	Asp	Asp	Ser	Gly	Gln	Tyr	Tyr	Cys	Ile	Ala	Ser	Asn	Asp	Ala	215	220	225
Gly	Ser	Ala	Arg	Cys	Glu	Glu	Gln	Glu	Met	Glu	Val	Tyr	Asp	Leu	230	235	240
Asn	Ile	Gly	Gly	Ile	Ile	Gly	Gly	Val	Leu	Val	Val	Leu	Ala	Val	245	250	255
Leu	Ala	Leu	Ile	Thr	Leu	Gly	Ile	Cys	Cys	Ala	Tyr	Arg	Arg	Gly	260	265	270
Tyr	Phe	Ile	Asn	Asn	Lys	Gln	Asp	Gly	Glu	Ser	Tyr	Lys	Asn	Pro	275	280	285
Gly	Lys	Pro	Asp	Gly	Val	Asn	Tyr	Ile	Arg	Thr	Asp	Glu	Glu	Gly	290	295	300
Asp	Phe	Arg	His	Lys	Ser	Ser	Phe	Val	Ile						305	310	